>> GOOD MORNING. I'M DEBBIE HERSMAN, CHAIRMAN OF THE NATIONAL TRANSPORTATION SAFETY BOARD IT IS MY PRIVILEGE TO WELCOME YOU TO THE NTSB'S BOARDROOM. I AM JOINED TODAY BY MY FELLOW COLLEAGUES. HE SERVED AS THE SPOKESPERSON FOR THE INVESTIGATION WHILE WE WERE ON SCENE IN BIRMINGHAM. TODAY WE HOLD A HEARING ON THE AUGUST 14, 2013 CRASH OF A UNITED ARSENAL SERVICE, UPS FLIGHT 1354 IN BIRMINGHAM, ALABAMA WHICH RESULTED IN THE DEATHS OF TWO COMMERCIAL PILOTS. ON BEHALF OF MY FELLOW BOARD MEMBERS, AND THE ENTIRE NTSB STAFF, WE OFFER OUR DEEPEST CONDOLENCES TO THE FAMILY AND FRIENDS WHO LOST LOVED ONES IN THIS CRASH. WE ARE JOINED IN THE BOARDROOM TODAY BY SEVERAL FAMILY MEMBERS AND FRIENDS OF THE CREW, AND AN ADDITIONAL NUMBER ARE WATCHING VIA WEBCAST. WE KNOW THAT THIS WILL BE A DIFFICULT DAY FOR YOU. WE CANNOT CHANGE WHAT HAPPENED, BUT WE DO HAVE THE OPPORTUNITY TO LEARN EVERYTHING WE CAN ABOUT THIS ACCIDENT TO PREVENT FUTURE OCCURRENCES. WHILE AIRLINE ACCIDENTS ARE RARE EVENTS, THEY ARE WIDELY PUBLICIZED, AND CLOSELY SCRUTINIZED BY EXPERTS AROUND THE GLOBE. WHEN AN ACCIDENT SUCH AS THIS OCCURS, IT IS THE RESPONSIBILITY OF THE NTSB , WITH ASSISTANCE FROM DESIGNATED PARTIES, FROM GOVERNMENT AND LABOR INDUSTRIES TO UNDERSTAND WHAT HAPPENED AND HOW WE CAN PREVENT IT FROM HAPPENING AGAIN. THE ISSUES THAT WILL BE DISCUSSED AT THIS HEARING SERVE TO ASSIST THE NTSB IN DEVELOPING ADDITIONAL FACTUAL INFORMATION FOR DETERMINING THE PROBABLE CAUSE FOR THIS ACCIDENT. SECOND, THIS ALSO PROVIDES AN OPPORTUNITY FOR THE AVIATION COMMUNITY, AND A PUBLIC TO SEE A PORTION OF THE TOTAL INVESTIGATIVE ROSS S -- PROCESS. THIS TRANSPARENCY REINFORCES OUR ROLE AS AN INDEPENDENT AGENCY, AND PROVIDES AN OPPORTUNITY FOR CITIZENS TO VIEW THE WORK BEING PUT FORTH BY INVESTIGATORS TO DETERMINE THE CAUSE OF THIS ACCIDENT. I WANT TO ASSURE THE FAMILIES OF THE CREW THAT THE NTSB WILL PURSUE EVERY LEAD TOWARD WHAT CAUSED OR CONTRIBUTED TO THIS ACCIDENT. WE WILL ALSO FULFILL OUR BROADER MANDATE TO FORMULATE RECOMMENDATIONS, TO PREVENT TRAGEDIES NOT ONLY IN THE U.S., BUT WORLDWIDE. PUBLIC HEARINGS SUCH AS THIS ARE EXERCISES IN ACCOUNTABILITY. ACCOUNTABILITY ON THE PART OF THE NTSB, THAT IT IS CONDUCTING A THOROUGH AND FAIR INVESTIGATION. ACCOUNTABILITY ON THE PART OF THE FAA, THAT IT IS ADEQUATELY REGULATING THE INDUSTRY. ACCOUNTABILITY ON THE PART OF THE AIRLINE, THAT IT IS OPERATING SAFELY. ACCOUNTABILITY ON THE PART OF MANUFACTURERS, AS TO THE DESIGN AND PERFORMANCE OF THEIR PRODUCTS. AND ACCOUNTABILITY ON THE PART OF THE WORKFORCE, INCLUDING PILOTS AND MECHANICS, THAT THEY ARE PERFORMING TO THE HIGH STANDARDS AND PROFESSIONALISM EXPECTED OF THEM. DURING THIS INVESTIGATION, THE NTSB IS WORKING WITH OUR FRENCH COUNTERPART THE BEA. I WANT TO WELCOME A REPRESENTATIVE. ON AUGUST 14,2013, UPS FLIGHT 1354 CRASHED SHORT OF RUNWAY 18 WHILE ON APPROACH TO BIRMINGHAM-SHUTTLESWORTH INTERNATIONAL AIRPORT IN ALABAMA. THE TWO CREW MEMBERS WERE FATALLY INJURED, AND THE CARGO WAS DESTROYED. IT ORIGINATED FROM LOUISVILLE INTERNATIONAL AIRPORT IN KENTUCKY. LAST WEEK, ON FEBRUARY 13, 20 14 FOR THE NTSB CONDUCTED A PREHEARING CONFERENCE FOR THE PERSONNEL AND PARTIES TO THIS HEARING. AT THAT PREHEARING CONFERENCE WE IDENTIFIED THE ISSUES TO BE DISCUSSED AT THIS HEARING, AND IDENTIFYING AND AGREED UPON THE LIST OF WITNESSES AND EXHIBITS. THE THREE BROAD ISSUES THAT WE WILL DISCUSS TODAY ARE FIRST, NON-PRECISION APPROACHES, SECOND, HUMAN FACTORS, AND THIRD FLIGHTS DISPATCH. TESTIMONY WILL BE LIMITED TO THESE THREE ISSUE AREAS. THE FOUR RECEIVING I WOULD LIKE TO IDENTIFY THE STAFF MEMBERS THAT ARE A PART OF THIS HEARING. INVESTIGATOR IN CHARGE, THE HEARING OFFICER, OUR TECHNICAL PANELISTS.

ALL OF THE NTSB, AND HOW REPRESENTATIVE FROM THE BEA. THANK YOU TO EVERYONE WHOM I HAVE MENTIONED, ALSO THE NTSB EMPLOYEES WHO OF IRKS TIRELESSLY BEHIND THE SCENES. WE HAVE A NEW DOCKET SYSTEM. I KNOW WE HAD EMPLOYEES WHO WERE WORKING UNTIL THE WEE HOURS OF THE MORNING MAKING SURE THAT ALL OF THE MATERIALS WERE AVAILABLE FOR THE PUBLIC AND THE PARTIES. THANK YOU FOR WORKING HARD TO MAKE THIS HEARING POSSIBLE. I WILL NOW INTRODUCE THE PARTIES DESIGNATED TO PARTICIPATE IN THE AREA -- HEARING. WE DESIGNATE AS PARTIES THOSE PERSONS WHO WE DEEM WILL DEVELOP PERTINENT EVIDENCE. AS I CALL THE NAME OF EACH PARTY, I WOULD ASK THE DESIGNATED SPOKESPERSON TO IDENTIFY THEMSELVES, STATE THEIR AFFILIATION WITH THE PARTY, AND INTRODUCE THE OTHER PERSONS AT THE TABLE. REMEMBER, YOU NEED TO PRESS THE BUTTON ON YOUR MIC, AND SPEAK DIRECTLY INTO THE MICROPHONE. WE WILL BEGIN WITH AIRBUS.

>> GOOD MORNING MADAM CHAIRMAN THAT AIRBUS WOULD LIKE TO EXPRESS ITS CONDOLENCES AS WELL TO THE FAMILY AND FRIENDS OF THE FLIGHT GROUP. THIS MORNING WE HAVE MYSELF, THE VICE PRESIDENT OF SAFETY AND TECHNICAL AFFAIRS, NEXT TO ME IS OUR SENIOR VICE PRESIDENT OF PRODUCT SAFETY, AIR SAFETY INVESTIGATOR, VICE PRESIDENT OF FLIGHT SHOPS AND TRAINING SUPPORT -- OPS AND TRAINING SUPPORT, AND THE DIRECTOR OF SAFETY AND TECHNICAL AFFAIRS. THANK YOU.

>> THANK YOU. WE WILL NOW MOVE TO THE FEDERAL AVIATION ADMINISTRATION.

>> GOOD MORNING. BOB DRAKE, WITH THE OFFICE OF ACCIDENT INVESTIGATION, AND I'VE BOB HENDRICKSON ALSO WITH THE OFFICE OF ACCIDENT INVESTIGATION AND ARE ON SCENE INVESTIGATOR. THE OFFICE OF AEROSPACE MEDICINE, OUR GENERAL COUNSEL, AND FLIGHT STANDARDS. THANK YOU.

>> THANK YOU. WE WILL MOVE TO THE INDEPENDENT I LIVE ASSOCIATION, -- INDEPENDENT PILOTS ASSOCIATION.

>> WE WOULD ALSO LIKE TO EXTEND OUR CONDOLENCES TO THE FAMILY AND FRIENDS OF FLIGHT 1354. ACROSS FROM ME AS FIRST OFFICER -- MEMBER OF THE STRUCTURES GROUP. THANK YOU.

>> TRANSPORT WORKERS UNION.

>> GOOD MORNING. WE WOULD ALSO LIKE TO OFFER OUR CONDOLENCES TO THE FAMILIES OF FLIGHT 1354. I HAVE A DISPATCHER FROM SOUTHWEST AIRLINES, AND THE DISPATCHER FROM SPIRIT AIRLINES. THANK YOU.

>> UNITED PARCEL SERVICE.

>> THANK YOU. THE DIRECTOR OF SAFETY. FLIGHT 1354 WAS A TERRIBLE TRAGEDY, AND OUR THOUGHTS AND PRAYERS AND YOU TO BE WITH OUR LOST PILOT -- CONTINUE TO BE WITH OUR LOST PILOTS. ACROSS FROM ME IS THE UPS QUALITY COORDINATOR. THE UBS VICE PRESIDENT AND GENERAL COUNSEL, DPS REVISITED, FOR OPERATIONS AND INVESTIGATION PERFORMANCE GROUPS, OUTSIDE COUNSEL GPS -- TOP UPS. THANK YOU.

>> I WOULD LIKE TO THANK ALL OF THE PARTIES FOR THEIR ASSISTANCE AND

COOPERATION WITH THE INVESTIGATION SO FAR. WE WILL BEGIN THE HEARING WITH A PRESENTATION BY THE INVESTIGATOR IN CHARGE, DR. DAN BAUER, WHO WILL PROVIDE AN OVERVIEW OF THE CRASH. WE WILL THEN PROCEED IN SEQUENCE FOR EACH OF THE THREE HEARING ISSUE AREAS. FOR EACH PANEL, THE HEARING OFFICER JOHN LOVELL WILL CALL AND INTRODUCE THE WITNESSES, AND EACH WILL TESTIFY UNDER OATH. THE WITNESSES HAVE BEEN REQUALIFIED -- PREQUALIFIED, WHICH MEANS THAT THERE -- T HEIR INFORMATION AND BIOGRAPHICAL INFORMATION HAS BEEN PROVIDED ONLINE FOR REVIEW. FINALLY, BY THE BOARD OF INQUIRY, WHICH CONSISTS OF FIVE BOARD MEMBERS. THE PARTIES WILL BE LIMITED TO FIVE MINUTES PER PANEL. AFTER ONE WOUND UP SESSIONS -- ROUND OF QUESTIONS A SECOND ROUND WILL BE LIMITED TO PERTINENT QUESTIONS THAT SERVE TO CLARIFY THE RECORD, OR ADDRESS SOME NEW MATTER RAISED. I MUST EMPHASIZE AGAIN THE FACT-FINDING NATURE OF THE HEARING. THESE HEARINGS ARE BY REGULATION FACT-FINDING PROCEEDINGS WITH NO ADVERSE PARTIES. THE BOARD DOES NOT ASSIGN FAULT OR BLAME FOR AN ACCIDENT OR INCIDENT. AT THIS HEARING, WITNESSES MAY NOT ANALYZE OR SPECULATE. QUESTIONS OUR LIMITED TO THE TREE DETERMINE SUBJECT MATTER OF THE HEARING WHICH ARE CONTAINED IN THE SUBJECT MATTER AGENDA. LEGAL LIABILITY, WILL NOT BE PERMITTED. I WOULD LIKE TO TAKE THIS MOMENT TO ALSO REMIND THE PARTIES THAT THIS IS NOT JUST ABOUT WHAT TAKES PLACE IN THIS HEARING ROOM, AND I WOULD PROVIDE A CAUTION TO YOU AND EVERYONE ON YOUR TEAM ABOUT ENGAGING WITH THE MEDIA IN ANALYTICAL STATEMENTS. TAKE THIS AS YOUR WARNING. IF WE SEE ANY OF THAT TAKING PLACE, WE DO HAVE THE ABILITY TO REMOVE PARTIES FROM THE INVESTIGATION. WE DO NOT WANT TO SEE ANYMORE SPECULATION IN THE MEDIA. IT IS ABOUT PROTECTING ALL OF YOU AND STICKING TO THE FACTS. SUB EXHIBIT -- SOME EXHIBITS INCLUDE MARKINGS AND REDUCTION ACTIONS. THE NTSB IS AUTHORIZED BY STATUTE TO DISCLOSE INFORMATION TO CARRY OUT ITS DUTIES, BUT WE ATTEMPT TO DO SO IN A WAY THAT PROTECTS CONFIDENTIALITY TO THE GREATEST A STENT DECIBEL -- EXTENT PSOOSSIBLE.

>> THANK YOU, MADAM CHAIRMAN. GOOD MORNING EVERYONE. IN THE EVENT OF A FIRE ALARM, THERE ARE THREE WAYS TO EXIT THE BOARD ROOM. THERE IS AN EXIT TO THE STREET LOCATED DIRECTLY BEYOND THE DOORS WHERE YOU ENTER THE BORDER, AND THERE ARE EXITS ON EITHER SIDE OF THE BOARD MEMBER PODIUM. IF AN EMERGENCY ARISES, AND SOMEONE NEEDS EMERGENCY ATTENTION, PLEASE NOTIFY ONE OF THE SECURITY GUARDS AT THE ENTRANCE TO THE BORDER. -- BOARD ROOM. BECAUSE OF OUR FULL SCHEDULE, RATES WILL BE FOR 15 MINUTES. WE WILL HAVE AN AFTERNOON BREAK AROUND 3:00 P.M. REGARDING MARKETICROPHONES, MOVED CLOSE TO YOU, AND TURN IT ON BY PRESSING THE SMALL BUTTON AT ITS BASE. TURN IT OFF WHEN FINISHED SPEAKING, TO PREVENT INTERVENE RFERENCE. MAKE YOUR WESTERNS SHORT AND CONCISE TO P[RROVIDE OPTIMAL QUALITY. ALL OF THE INFORMATION IS AVAILABLE IN THE DOCKET, WHICH IS AVAILABLE ON OUR WEBSITE. PARTIES WILL HAVE THE OPPORTUNITY TO SUBMIT PROPOSED FINDINGS OF FACTM, RECOMMENDATIONS, AND INQUIRY THAT THE CLOSE OF THE HEARING. SUBMISSIONS WILL BE A HARD OF THE PUBLIC DOCKET, AND WILL RECEIVE CAREFUL COMMISERATION -- CONSIDERATION IN THE FINAL REPORT. I ENCOURAGE THE PARTIES TO MAKE USE OF THIS OPPORTUNITY. THEY MUST BE SUBMITTED WITHIN 30 CALENDAR DAYS OF TODAY'S DATE, AND COPIES MUST BE INVITED TO EACH MEMBER OF THE HEARING -- PROVIDED TO EACH MEMBER OF THE HEARING. MADAM CHAIRMAN, THAT IS ALL THAT I HAVE AT THIS TIME.

>> THANK YOU. ARE WE READY TO CALL IN AND SWEAR IN OUR FIRST WITNESSES?

>> YES WE ARE, MADAM CHAIRMAN.

>> DR. BAUER, PLEASE PROCEED WITH YOUR PRESENTATION.

>> THANK YOU. MEMBERS OF THE BOARD, THIS PRESENTATION WILL PROVIDE AN OVERVIEW OF SOME OF THE PERTINENT FACTS CONTAINED IN THE INVESTIGATION. ALL SHOULD BE REMINDED THAT THE ENTIRE RECORD OF FACTUAL INFORMATION COLLECTED TO DATE IS CONTAINED IN THE PUBLIC DOCKET FOR THIS INVESTIGATION. UPS FLIGHT 1354 WAS A CARGO FLIGHT FROM LOUISVILLE KENTUCKY, OPERATING UNDER THE PROVISIONS. IT WAS SCHEDULED TO ARRIVE AT BIRMINGHAM-SHUTTLESWORTH AT 0450 LOCAL TIME. THE WEATHER REPORTED TO THE CREW AT THE TIME WAS ROGAN CLOUDS THOUSAND FEET ABOVE THE GROUND, OVERCAST AND 7500 FEET, CALM WINDS, AND 10 MILES VISIBILITY. THE CAPTAIN WAS THE PILOT FLYING, AND THE FIRST OFFICER WITH THE PILOT MONITORING. RUNWAY SIX6/24 WAS CLOSED FOR REPAIRS BETWEEN ZERO 400 AND ZERO 600 -- 040400 AND 0600, AND WAS DISPATCHED WITH A PLATE APPROACH TO RUNWAY 18. THE LOCALIZER ABOUT APPROACH TO 118 IN BIRMINGHAM -- RUNWAY 18 IN BIRMINGHAM, IS A NONPHYSICIAN APPROACH. BECAUSE IT DOES NOT HAVE GONE-BASED GUIDANCE, THE CREW BRIEFED AND PREPARED FOR THE VERTICAL GUIDANCE TO BE PROVIDED BY THE FLIGHT MANAGEMENT COMPUTER ON THE AIRPLANE, BY MEANS OF A COMPUTER GENERATED LIKE PAST PANEL -- FLIGHT PATH PANEL. THE FOLLOWING CHARTS WILL DISPLAY THE PATH OF THE AIRPLANE VERTICALLY. THE RUNWAY THRESHOLD IS DICTATED IN THE LOWER RIGHT CORNER. THE APPROACHES DEFINED BY THREE APPROACH FIXES. EACH OF THESE FIXES HAVE A MINIMUM CROSSING ALTITUDE ASSOCIATED WITH THEM. THE FINAL DECISION ALTITUDE WHICH IS THE MINIMUM ALTITUDE TO DECIDE TO COMMIT TO LEAD TO GO AROUND IS 1200 FEET ABOVE SEA LEVEL, OR 500 FEET ABOVE THE AIRPORT GROUND ELEVATION, AND OCCURS AFTER IMTOY. THE LOCATIONS ALSO PROVIDE THE DESIRED FLIGHT PATH OF A .28 DEGREES -- 3.28 DEGREES. THESE APPROACHED THE THIS, MINIMUM ALTITUDE, AND DESCENT PATH WILL BE DISPLAYED ON THE NEXT SEVERAL SLIDES ALSO, THE STATUS OF THE AUTOPILOT 11:00AM-12:00PM ET AUTOPILOT WILL BE DISPLAYED. IT WAS DISTRACTED TO -- INSTRUCTED TO DESCEND AND MAINTAIN ALTITUDE UNTIL ESTABLISHED ON THE LOCALIZER. THE AUTOPILOT WAS SENT TO FLIGHT LEVEL CHANGE, WITH THE SELECTIVE ALTITUDE OF 2500 FEET AND THE LANDING CLEAR HAD BEEN LOWERED ABOUT 30 SECONDS PRIOR TO THIS, ERIC. -- PRIOR TO THIS. WITHIN 12 MILES OF RUNWAY 18. WHEN THE AIRCRAFT WAS AT AN ALTITUDE OF 2500 FEET AN AIRSPEED OF 213 KNOTS AND ABOUT NINE MEDICAL MILES FROM RUNWAY 18, IT CHANGED TO ALTITUDE HOLD, AND MAINTAIN THE VALUE OF 2500 FEET. THE MINIMUM CROSSING ALTITUDE OF THIS SECTION OF THE APPROACH BETWEEN COLIG AND BASKIN IS 2600 FEET. THE AIRCRAFT BEGAN TO SLOW TO MAINTAIN THE SPEED. IT REMAINED AT THIS VALUE FOR THE REMAINDER OF THE RECORDING. THE FIRST OFFICER BEGAN THE LANDING CHECKLIST. THE FLAPS WERE CONFIGURED TO LANDING. AS THE AIRCRAFT APPROACHED THE FINAL APPROACH TO BASKIN, THE ARTICLE PILOT -- AUTOPILOT WAS MOVED FROM VERTICAL SPEED, THERE WAS NO VERBAL ACKNOWLEDGMENT BY THE CAPTAIN. THE CHART HAS NOW CHANGED SCALE TO THE AREA CLOSER TO THE RUNWAY. THE TERRAIN BELOW THE FLIGHT PATH IS INDICATED. THE SELECTED VERTICAL SPEED WAS INITIALLY SET TO 700 FEET PER MINUTE, 700 SECONDS AFTER VERTICAL SPEEDBOAT -- SPEED MODE. AT THIS WAY, THE CAPTAIN INCREASED THE VERTICAL SPEED TO 1000 FEET PER MINUTE. ABOUT 10 SECONDS AFTER THE FIRST OFFICER HAD COMPLETED THE LANDING CHECKLIST, SHE MAKES A COMMENT REGARDING THE VERTICAL SPEED, WHICH TO WHICH THE CAPTAIN RESPONDED I'M GOING TO MAKE VERTICAL SPEED. HE THEN INCREASED IT TO 1500 FEET PER MINUTE. THE AIRCRAFTPASSED, AND THEY MADE THE CALL OUT, AND HE

RESPONDED TWO SECOND LATER. THERE WERE NO FURTHER CALLOUTS OF ALTITUDE. THE TERRAIN AGAIN IS DEPICTED, ALONG WITH THE ESTIMATED CLOUD HEIGHT AT THE TIME OF THE ACCIDENT. THE PILOT PASSED IMTOY AT THE RECOMMENDED HEIGHT, BUT IT CONTINUED TO DESCEND AT 1500 FEET PER MINUTE. IT THEN PASSED TO THE MINIMUM ALTITUDE OF 1200 FEET WITH NO CALL OUT REGARDING MINIMUM ALTITUDE BY THE FLIGHT CREW. AS THE PLANE DESCENDED DOWN TO 1000 FEET, TO UTTER FEET ABOVE THE LOCAL TERRAIN, THE GROUND WORK 70 WARNING LINK -- GROUND PROXIMITY WARNING SYSTEM WAS ACTIVATED. ONE SECOND AFTER THE ALERT, THE CAPTAIN BEGAN TO REDUCE THE VERTICAL SPEED, TO 450 FEET PER MINUTE THREE SECONDS LATER. AT THIS TIME FROM THE CAPTAIN CALLED THE RUNWAY IN SIGHT, WHICH WAS CONFIRMED BY THE FIRST OFFICER, AND THE CAPTAIN PROCEEDED TO DISCONNECT THE AUTOPILOT. THE AUTOPILOT DISCONNECT WAS FOLLOWED BY THE FIRST IMPACT ONE SECOND LATER. THE CBR CONTINUED RECORDING FOR THE NEXT 90 SECONDS, AND RECORDED A GROUND PROXIMITY WARNING SYSTEM ALERT ONE SECOND AFTER THE SOUND OF FIRST TREE IMPACT. THIS DIAGRAM SHOWS THE FRACTION OF THE APPROACH. THE LOCATION OF THE INITIAL TREE STRIKE, AND LOCATION OF THE MAIN WRECKAGE. SURVEILLANCE VIDEO CAMERAS BASED AT THE AIRPORT CAPTURED THE FIRE ASSOCIATED WITH THE EFFECT OF THE AIRPLANE, SEEN IN THE UPPER LEFT-HAND SIDE OF THIS VIDEO STILL. ALSO NOTABLE IS THE RESIDENCE OF CLOUDS OVER THE IMPACT AREA. WHEN THE CREW STATED THE AIRPORT WAS IN SIGHT INDICATED THAT THE ESTIMATED CLOUD BASE AS SHOWN ON THE PREVIOUS PROFILE VIEW SLIDES WAS ABOUT 350 FEET ABOVE THE AIRPORT ELEVATION. THIS OVERHEAD VIEW SHOWS THE MAIN IMPACT AREA. THE AIRCRAFT AND ENTERED FROM THE RIGHT, AND THE MAIN BODY OF THE AIRCRAFT STRUCK AND UPSLOPE AREA THAT IGNITED THE FUEL TANKS. WE HAVE NOT IDENTIFIED ANY ANOMALIES WITH THE AIRPLANE, SYSTEMS, OR ENHANCED GROUND PROXIMITY WARNING. PANEL ONE, EXECUTION OF NON-PRECISION APPROACHES, INCLUDING INITIAL AND RECURRENT TRAINING, STANDARD OPERATING PROCEDURES, AND PROFICIENCY. PANEL TWO, HUMAN FACTORS, INCLUDING CREW RESOURCE MANAGEMENT AND COORDINATION, MONITORING AND CROSSCHECKING, FATIGUE AND FITNESS FOR DUTY. AND PANEL THREE, THIS DISPATCH PROCEDURES, AND LIMITATIONS OF DISPATCH SOFTWARE.

>> THANK YOU. MR. LEVEL, WILL YOU PLEASE INTRODUCE THE PANELISTS AND WEAR THEM IN -- SWEAR THEM IN?

>> MOVED TO THE FORWARD AREA. PANEL ONE? PLEASE BE SEATED. MADAM CHAIRMAN, THE PANELS COMPOSED OF THE FOLLOWING INDIVIDUALS, BOARD OF INQUIRY, FAA, IPA, AND AIRBUS. DR. DAN BAUER, DR. KATHLEEN WILSON, DR. DAVID LAWRENCE, AND MISSED THE INITIAL -- MISS DANA SCHULTZ. PLEASE RAISE YOUR RIGHT HAND. DO YOU SWEAR OR AFFIRM TO TELL THE TRUTH? PLEASE BE SEATED. CHAIRMAN, THESE WITNESSES HAVE BEEN PREQUALIFIED AND THEIR RESPECTIVE EXPERIENCE AND QUALIFICATIONS APPEAR THE DOCKET AS GROUP ONE. I TURNED THE QUESTIONS OVER TO CAPTAIN LAWRENCE.

>> BRING UP EXHIBIT 2A. IF YOU WOULD INTRODUCE YOURSELF AND YOUR TITLE, PLEASE.

>> GOOD MORNING, MY NAME IS MARK STEINBRECHER, I WORK WITH THE FAA.

>> I AM CAPTAIN PETE LORENZ, FLIGHT STANDARDS TRAINING.

>> MY NAME IS DREW MIDDLETON, I AM AN AIRBUS PILOT, AND A FLIGHT INSTRUCTOR.

>> I'M WORKING FOR AIRBUS AS THE EXAMINER ON THE 300.

>> PULLED THE MICROPHONES CLOSE TO YOU, AND SPEAK DIRECTLY INTO THEM, LOUDLY, SO EVERYONE CAN HEAR YOU.

>> I WOULD LIKE TO START WITH CAPTAIN MIDDLETON. SEVERAL METHODS TO COMPLETE THE NON-PRECISION APPROACH. DO YOU TRAIN IN BOTH?

>> YES WE DO.

>> WHICH IS THE PREFERRED METHOD, AND WHY?

>> THE PROFILE METHOD IS THE PREFERRED METHOD. IT IS CHOSEN THAT WAY, BECAUSE OF THE INTERNET LANDING SYSTEM -- INSTRUMENT LANDING SYSTEM, WHICH IS WHAT WE PREFERRED THEM TO DO.

>> WHAT TYPE OF GUIDANCE DOES UPS PROVIDE IN TRAINING THEIR PILOTS FOR THESE APPROACHES?

>> ASIDE FROM THE TRAINING?

>> MANUALS OR STUDY MATERIAL?

>> THE AIRCRAFT OPERATING MANUAL, THAT ALL OF THE CREW MEMBERS KERRY HAS GUIDANCE FOR THE APPROACH. THERE'S IS ALSO A BRIEFING GUIDE THAT IS CREATED, THAT HAS ALL OF THE DIFFERENT STEPS THAT ARE REQUIRED. WE ALSO COVER THAT TYPE OF APPROACH AND RECURRENT TRAINING EVERY YEAR.

>> FOR VERTICAL SPEED APPROACHES, WHAT IS THE MAXIMUM VALUE OF THE VERTICAL SPEED SELECTED FOR THE PILOTS TO CONDUCT A VERTICAL SPEED APPROACH?

>> IT DEPENDS ON WHERE THEY ARE. IF THEY'RE FLYING MORE THAN 1000 FEET ABOVE THE GROUND WITH THE MAXIMUM VALUE THAT THEY CAN SELECT, PER HOUR OPERATING PROCEDURE IS TO DO HUNDRED FEET PER MINUTE. ONCE THEY COME FROM 1000 FEET DOWN, THAT DECREASES TO 1000 FEET PER MINUTE AS THE MAXIMUM BASE AND SELECT -- MAXIMUM THEY SHOULD SELECT.

>> HOW OFTEN ARE PILOT SEEING NON-PRECISION APPROACHES IN THE SIMULATOR?

>> EVERY TIME THEY COME BACK FOR TRAINING EVERY YEAR.

>> HOW MANY TIME WITH AC THE PROFILE APPROACH VERSUS THE VERTICAL SPEED?

>> THEY WOULD SEE THE PROFILE APPROACH MORE OFTEN.

>> HOW WOULD THE PILOT IN THE COCKPIT SET UP FOR A PROFILE APPROACH?

>> COULD YOU BRING UP THE ATTACHMENT FOR THE PROFILE BRIEFING GUIDE?

>> I BELIEVE THAT WOULD BE EXHIBIT 2H, PAGE 4. WHILE HE IS PULLING THAT UP, COULD

YOU JUST VERBALLY EXPLAIN?

>> THE GUY THAT HE IS GOING TO BRING UP -- GUIDE THAT HE IS GOING TO BRING UP, THE PROFILE APPROACH, THERE ARE VERY PARTICULAR STEPS THAT HAVE TO BE DONE. WHAT YOU WILL SEE IS THAT IN ACTUALITY THERE ARE ONLY ABOUT THREE THINGS THAT CREW MEMBERS HAVE TO DO, BUT THERE ARE ALL SORTS OF THINGS THAT THEY SHOULD VERIFY. WHAT YOU'RE LOOKING AT NOW IS A GUY THAT WAS CREATED -- GUIDE THAT WAS CREATED. THIS IS A GENERIC GUIDE IN THAT THERE ARE MULTIPLE TYPES OF APPROACHES THEY CAN DO. AS THEY'RE GOING THROUGH THE BRIEFING GUIDE, THERE ARE SOME THINGS THEY MAY FIND THAT ARE NOT PERTINENT TO A LOCALIZED APPROACH, SO THEY UNDERSTAND THAT IT IS GENERIC IN THAT IT DOES NOT APPLY TO WHAT THEY'RE DOING. WHAT YOU'RE LOOKING AT RIGHT NOW IS THE FIRST PAGE OF THE PROFILE APPROACH RE-THINK -- BRIEFING GUIDE. FIRST YOU WOULD IDENTIFY WHICH TYPE OF APPROACH YOUR SHOOTING -- YOU ARE SHOOTING. AS THIS CHART LOWS OVER TO THE RIGHT, IT SETS THEM UP FOR THE FEW THINGS THAT THEY HAVE TO DO. ONE OF THE THINGS THAT THEY HAVE TO DO IS TO PROGRAM THE FLIGHT MANAGEMENT COMPUTER TO RECOGNIZE THE PARTICULAR APPROACH THEY'RE GOING TO FLY. ONE OF THE STEPS IN THE BRIEFING GUIDE IS THAT IF YOU'RE GOING TO DO A LOCALIZED APPROACH, IT TELLS YOU WHAT THE TITLE WITH THAT WOULD BE ON THE APPROACH CHART, AND HOW THAT WOULD LOOK IN THE MANAGEMENT COMPUTER BECAUSE THE TITLES MIGHT BE A LITTLE DIFFERENT. FURTHER ACROSS THAT SHOWS THE VISUAL CUES YOU MIGHT SEE ON THIS TYPE OF APPROACH. I WOULD TELL THE CREW MEMBERS THAT THAT IS THE BUTTON YOU SHOULD PRESS TO BE CLEARED TO APPROACH. IN THE FINAL COLUMN, THERE IS A POSITION TO SHOW TO PRESS THE BUTTON FOR A PARTICULAR DISPLAY. COULD YOU BRING THAT DOWN TO THE NEXT PAGE? JUST UNDERNEATH THE MATRICES. STEP ONE, IS REMINDING OFTHEM OF THOSE THINGS. IN THOSE SEVEN OR EIGHT BULLETS THAT YOU SEE, THEY ARE NOT ALL PERTINENT TO A LOCALIZED APPROACH, BUT THEY WOULD HAVE THINGS IN THERE. ONE WOULD BE NUMBER FOUR, VERIFY TEMPERATURE RESTRICTIONS. PROFILE APPROACHES, IF THE AIR IS TOO COLD, AND CONDENSES TOO MUCH OF THE AIRCRAFT COULD BE LOWER THAN IT THINKS IT IS. THERE ARE RESTRICTIONS ON THE APPROACHES. THEY WILL GO THROUGH THAT. THAT NUMBER TWO IS A VERY IMPORTANT STEP, THEY NEED TO DETERMINE WHAT MINIMUMS THEY ARE GOING TO FLY DOWN TO. THEN MINIMUMS FOR THE PILOTS ARE THE POINT AT WHICH THEY HAVE TO MAKE A CHOICE TO LAND OR GO AROUND. IT IS VERY IMPORTANT THAT THEY DO THAT PROPERLY. WE PUT THAT BULLET IN THERE TO HELP THEM DETERMINE THAT. AFTER THEY HAVE DECIDED THAT, THEY NEED TO ENTER THAT THE KILLER NUMBER THAT THEY -- THAT PARTICULAR NUMBER THEY COME UP WITH. IF THERE IS ADDITIONAL WIND, THERE ARE JUST AS THEY HAVE TO MAKE -- ADJUSTMENTS THEY HAVE TO MAKE. BLOOD FIVE IS THREE THINGS YOU HAVE TO DO, LOAD THE APPROACH, THIS IS ANOTHER PHYSICAL ACTION, YOU HAVE TO ACTIVATE THE FINAL. IT IS A CONFIRMATION TO THE COMPUTER ABOUT WHAT YOU'RE GOING TO DO, AND CONVERTS THE FLIGHT MANAGEMENT COMPUTER IN A WAY THAT IT IS NO LONGER THINKING IN IS IN ROUTE. THEY ABSOLUTELY HAVE TO PRESS THAT BUTTON. IT IS CRITICAL. FINALLY, WHEN THEY ARE READY TO HAVE THE AIRCRAFT HE SAID WHEN THERE'S ANOTHER PHYSICAL BUTTON THEY HAVE TO PRESS THAT TELLS THEM TO DO THAT.

>> IN THE COCKPIT, THE USED THIS ROW FILE BRIEFING -- PROFILE BRIEFING. FOR THESE NON-PRECISION APPROACHES HOW WOULD THEY SET UP THOSE TO BE VIEWED DURING THE APPROACH ITSELF? WHAT PAGE ARE THEY LOOKING AT?

>> DO YOU WANT THE APPROACHES LOADED?

>> FOR THE PROFILE APPROACH, WHAT PAGE WOULD THEY BE LOOKING AT?

>> WE HAVE A TAKE OFF PAGE, AND IT SHOWS THAT THE COMPUTER IS IN FINAL APPROACH WELCOMED, AND GIVES YOU A DEPICTION OF YOUR POSITION RELATIVE TO THE VERTICAL GUIDANCE PATH.

>> YOU MENTIONED THEY WERE CRITICAL TO PITCH IN BECAUSE THEY MAY BE DIFFERENT THAN THE METHOD BEING CONDUCTED. IF AN APPROACH CHANGES, IF THEY BEGIN A PROFILE APPROACH METHOD, AND DECIDE TO CHANGE TO A VERTICAL SPEED IN MINUTE PROSE, WITH THAT CHANGE THE MINIMUMS?

>> IT COULD. IT IS SOME OCCASIONS WHERE YOU HAVE THE SAME, BUT IT WOULD NORMALLY CHANGE.

>> WITH THAT REQUIRE A REPRIEVE OF THE APPROACH -- WEREBRIEF OTF THAT APPROACH?

>> IT WOULD.

>> IF THEY HAVE TO PUSH THAT PROFILE BUTTON, IF I PILOT MISSED ONE OF THOSE STEPS, WHAT WOULD BE THE RESULT?

>> IF YOU DO NOT SEQUENCE THE APPROACH SUCH THAT THE FLIGHT MANAGEMENT COMPUTER SEES THE LINE THAT IT IS GOING TO FLY ON, OR IN ESSENCE, IS WHERE THINGS IT THINKS IT IS, IT WOULD NOT WORK. IT IS A NECESSARY STEP.

>> THE PROFILE WOULD NOT CAPTURE?

>> CORRECT.

>> READING THE APPROACH, AND SEQUENCEING THE APPROACH, IS THAT UNIQUE, OR SOMETHING THEY ALL DO?

>> THAT IS THE BEDROCK TRAINING, WHETHER THEY ARE DOING A VISUAL APPROACH, AND HAVE AN INSTRUMENT APPROACH REBECCA, OR THEY'D ARE DOING A PRECISION APPROACH -- APPROACH FOR BACKUP, OR THEY ARE DOING A PRECISION APPROACH, THIS IS WHAT THEY HAVE TO DO FOR ALL OF THOSE.

>> WHO SETS UP THIS APPROACH AND SEQUENCES THIS?

>> THE PILOT MONITORING, WILL NORMALLY DO THAT.

>> YOU DO FLY THE LINE?

>> YES.

>> YOU SEE THE PILOTS AS THEY CYCLE THROUGH THE TRAINING, BUT ALSO FLY THE LINE. IS THIS SOMETHING THAT THEY SEE ON A REGULAR BASIS?

>> NO THEY ARE NOT.

>> HOW MANY WOULD THEY SEE THE COURSE OF A YEAR?

>> I DID TWO LAST YEAR.

>> YOU WERE PART OF THE INITIAL CADRE FOR THE A 300.

>> THEY ARE SOME YEARS THAT THEIR TYPICAL, AND SOME THAT I WILL JUST DO THEM TO PRACTICE. MOST OF THE TIME WE DO THOSE BY MANAGEMENT LANDING SYSTEM -- BY AN INTSTRUMENT LANDING SYSTEM.

>> DR. BAUER SHOWED THE 3.28 DEGREES, IS THERE ANY WAY TO CHANGE THAT FROM ABOBVVE?

>> NO.

>> ARE THEY TRAIN TO COMBINE THOSE TWO METHODS?

>> THERE IS A PARTICULAR CASE, AND IN THAT CASE THERE IS A RESTRICTION THAT THE AIRCRAFT DO NOT PASS THE FINAL APPROACH FIXED ALTITUDE. THERE ARE OCCASIONS IN PROFILE MODE, WHERE THE AIRCRAFT MADE DESCENT EARLY. TO PREVENT THAT FROM HAPPENING, WE TRAIN THE CREWS TO REMAIN AT THE ALTITUDE UNTIL THEY CROSS THE FIXED. WE DO THAT BY MAINTAINING VERTICAL SPEED UNTIL 1000 BE DONE TO AND THEN THEY PRESS THE PROFILE BUTTON.

>> THANK YOU.

>> YOU HAVE REVIEWED THE APPROACH START FOR 1354, IS THAT THE CASE HERE?

>> NO, THIS IS NOT.

>> IS THERE ANY GUIDANCE THAT UBS PROVIDES THE PILOTS THAT THE METHOD THAT WAS REACHED, AND DOES NOT OCCUR FOR INSTANCES IN THIS CASE, THE PROFILE DOES NOT CAPTURE FOR ONE OF REASONS, IS THERE ANY GUIDANCE THAT THEY PROVIDE TO THEIR PILOTS TO ABANDON THE APPROACH?

>> WE DO NOT HAVE ANYTHING SPECIFICALLY WRITTEN FOR THAT.

>> GOOD MORNING.

>> CAN YOU TELL ME, WALK US THROUGH THE VISUAL CUES THAT ARE IN THE COCKPIT TO THE PILOT THAT WOULD TELL HIM IF HE WAS REALLY SET UP FOR THE PROFILE APPROACH?

>> THE VISUAL CUES AVAILABLE FOR THE PILOTS ARE FIRST THE MODE ENUNCIATION'S ON THE PRIMARY FLIGHT DISPLAY, WHERE YOU CAN SEE WHETHER THE CORRECT MODES OF OPERATION AND THE AUTOPILOT SYSTEM HAVE BEEN ENGAGED. THE SECOND INDICATION IS THE FLIGHT INDICATOR ALONG THE FLIGHT PATH OF AN THE THIRD TWO WOULD BE THE VERTICAL DEVIATION INDICATION, THE GLIDE SLOPE INDICATION DISPLAY, WHICH YOU

WILL SEE THE DEVIATION FROM THE COMPUTER FLIGHT PATH.

>> WHO MONITORS THOSE DURING AN APPROACH?

>> THE PILOT FLYING.

>> HOW DOES THE PILOT KNOW THAT HE HAS ARRIVED AT THE DECISION ALTITUDE?

>> ON THAT AIRCRAFT THAT WOULD BE BY LOOKING AT THE ALTERNATOR, AND MONITORING THE ALTI MITER READING FOR THE ALTITUDE. IT WOULD BE 100 FEET ABOVE THE DECISION-AND THE DECISION HEIGHT AS WELL.

>> IS THERE ANYTHING THAT GUIDES THE PILOT AS TO WHAT --

>> I DID NOT UNDERSTAND?

>> THE ALTIMETER.

>> THERE IS A DECISION PACK THAT CAN BE SET BY THE PILOT.

>> IS THERE AN ORAL WORD, OR ANYTHING JUST LOOKING AT THE ULTIMATE ARE -- ALL TIMIDTIMETER?

>> NO. WE ARE GOING TO SHOW A PICTURE FROM UPS GUIDANCE MATERIAL FOR THE FLIGHT. CAN YOU EXPLAIN THE ROLE OF THE FMA ON THE AIRBUS 300?

>> COULD YOU REPEAT THE QUESTION?

>> THIS IS A FLIGHT MODE ANNUNCIATOR, THE PRIMARY LIGHT DISPLAY, -- FLIGHT DISPLAY, WHAT IS THE ROLE OF THIS?

>> THE KEY INFORMATION ON THE SYSTEM ARE WHAT ARE THE PRIMARY TARGETS, AND WHAT MODE THE SYSTEM IS IN. THE LATERAL GUIDANCE, THE FOURTH COLUMN SHOWS THE ENGAGEMENT STATUS FOR OPERATION, AND THE LAST COLUMN SHOWS THE ENGAGEMENT STATUS OF THE DIFFERENT SYSTEMS, FLIGHT DIRECTOR, AUTOPILOT, AUTO THRUST.

>> VERY GOOD. WHAT IS THIS PICTURE A DEPICTION OF?

>> THIS PICTURE IS DISPLAYING THAT THE AUTO THROTTLE, WHICH CONTROLS THE SPEED, THE SECOND WINDOW SHOWS THAT THE AIRCRAFT IS IN ALTITUDE HOLD MODE, AND THAT THE PROFILE DISSENT HAS BEEN -- DESCENT HAS BEEN ACTIVATED, AND THAT THE AIRCRAFT IS TRACKING THE LOCALIZER.

>> THIS IS A PICTURE OF AN A 300 SIMULATOR THAT UPS.

>> IT IS ILLUMINATED IN BLUE, THAT INDICATES WHAT?

>> THAT INDICATES THAT THE PILOT HAS PUSHED THE PROFILE BUTTON, AND THE SYSTEM IS ARMED TO INTERCEPT THE VERTICAL PATH.

>> WHAT WHITAKER WON THE PAST IS INVERTED -- WHAT WHITAKER ONCE THE PATH IS INTERCEPTED?

>> INJURED MOVED TO THE TOP LINE -- IT WOULD MOVE TO THE TOP LINE, INDICATED IN GREEN.

>> COULD THE PILOT GET THAT ARMED DESCENT IF THEY HAVE NOT ACTIVATED THE APPROACH?

>> WHEN THE APPROACH IS NOT ACTIVATED IN THE FLIGHT MANAGEMENT SYSTEM, IT IS NOT POSSIBLE.

>> THAT IS A REQUIRED STEP TO GET THAT TO GET THAT ON THE ANNUNCIATOR?

>> CORRECT.

>> IF THEY SEE THAT ON THE ANNUNCIATOR, CAN THEY DO THAT AND IF IT IS NOT SEQUENCED?

>> YES.

>> IS THERE ANY WARNING THAT TELLS THE PILOT HE IS NOT SEQUENCED?

>> THERE IS NO SUCH WARNING.

>> BASED ON YOUR INVESTIGATION, THE INDICATIONS ARE THAT THE PILOTS BEGAN IN A PROFILE APPROACH, AND MIDSTREAM, AT SOME POINT IN TIME PRIOR TO THE FINAL APPROACH, THEY SHIFTED TO A VERTICAL APPROACH. WHEN ON AUTOPILOT -- WHERE WOULD I PILOT MAKE INPUT ON THE MODE CONTROL PANEL TO PUT INPUT FOR THE VERTICAL SPEED?

>> COULD YOU REPEAT THE QUESTION?

>> IF I PILOT IS GOING TO REVERT FROM PROFILE TO THE VERTICAL SPEED, WHAT -- WHERE DOES HE INPUT?

>> IT IS ON THIS FLIGHT CONTROL PANEL, YOU CAN SEE IN THE RED CIRCLED WINDOW A VALUE THAT CORRESPONDS TO THE VERTICAL SPEED SELECTED, HERE IT IS SHOWN AS BEING ZERO. THAT DIAL IS THE ONE USED TO SELECT THE VERTICAL SPEED.

>> IT IS ON THE GLARE SHIELD?

>> CORRECT.

>> THE VALUE THAT THE PILOTS LIKE IS INDICATED IN THE OX IS RIGHT THERE -- BOXES RIGHT THERE. IF THE VALUE SELECTED REPEATED ON THE ANNUNCIATOR?

>> IT IS NOT.

>> ARE THERE SELECTED VERTICAL SPEED VALUES INDICATED ON THE ANNUNCIATOR IN THE THIRD-GENERATION AIRBUS?

>> IN THE CURRENT STAGE, THOSE ARE INDICATED ON THE PRIMARY FLIGHT DISPLAY.

>> CAN YOU EXPLAIN WHAT WAS -- WHAT WENT INTO AIRBUS POSSIBLE LOSS FEED TO INCLUDE A SELECTED VALUE ON THE FLIGHT MODE IS NO STATED -- LIGHT MODE ANNUNCIATOR PRIOR TO THESE CURRENT PLANES?

>> THE REASON FOR THAT SELECTI ON WAS AN EVOLUTION OF THE DISPLAY READ THAT HAS BEEN CHOSEN FOR THE NEW GENERATION OF AIRPLANES. CONTRARY TO THE AIRBUS 300 TYPE OF AIRCRAFT, THE IN THE NEW GENERATION COMING OF -- GENERATION, YOU HAVE MORE INTEGRATION INTO THE PRIMARY FLIGHT DISPLAY. YOU HAVE ALTITUDE, HEADING, AND VERTICAL SPEED. THE PHILOSOPHY THAT WAS PUT IN PLACE WAS WHEN A PILOT SELECTS A TARGET VALUE, HE CAN SEE HIS SELECTED TARGET VALUE ON THE PRIMARY FLIGHT DISPLAY. INITIALLY, THIS WAS TRUE FOR ALL BAROMETERS, EXCEPT FOR THE VERTICAL SPEED, BECAUSE OF THE LOCATION OF THE SCALE, AND THE SIZE OF THE SCALE. AFTER A CERTAIN MOMENT, IT WAS DECIDED TO COMPLETE THIS PHILOSOPHY INSOFAR THAT THE TARGET VERTICAL SPEED THAT THE PILOT SHOWS WAS ALSO TRANSFERRED TO THE PRIMARY FLIGHT TO

>> I SHOULD HAVE ASKED YOU EARLIER -- HOW DOES UPS TRAIN THEIR PILOTS TO CONDUCT THESE? DO THEY WANT THEM FLYING THESE ON AUTOPILOT?

>> THEY PREFER THAT, YES.

>> CAPTAIN CHRIS, BACK TO YOU. BASED ON THE APPROACH -- IF THE PILOT DOES NOT DISCONNECT, WILL THE AUTOPILOT AUTOMATICALLY DISCONNECT?

>> IT WOULD AT .50 FEET BELOW THE DECISION HEIGHT.

>> IS THAT AN MDA ON THE ALTIMETER BUG? OR IS IT ENTERED INTO THE COMPUTER?

>> IT IS INTERRED INTO THE COMPUTER AS ONE STEP.

>> IF THEY HAVE SET ENTERED, THEY NEVER FLY THE PROFILE. THEY DECIDE TO FLY VERTICAL SPEED -- DOESN'T DISCONNECT?

>> NO.

>> IT WOULD HAVE TO BE DISCONNECTED MANUALLY OR IT -- MANUALLY?

>> THAT IS CORRECT.

>> GOOD MORNING. YOU OPERATE BOEING 747S, 757S -- IN ADDITION TO THE A300, CORRECT? DO THESE AIRCRAFT ALSO INCORPORATE ENUNCIATE HER'S?

>> THEY DO.

>> DOES UPS REQUIRE THE PILOT AS PART OF THEIR STANDARD OPERATING PROCEDURE TO

VERBALLY ACKNOWLEDGED CHANGES?

>> THERE IS A PROTOCOL RELATIVE TO THE PRIVATE -- PILOT FLYING.

>> DOES UPS HAVE A POLICY FLEET WIDE AS TO CONDUCTING SEPARATE BRIEFINGS FOR AN APPROACH IF IT CHANGES MIDSTREAM? IF YOU BEGIN A PROFILE APPROACH AND THEIR REVERTS TO AND UP -- WOULD THAT REQUIRE A BRIEF BRIEFING?

>> IT WOULD. ANYTIME THAT THERE IS A CHANGE, WHETHER A RUNWAY INSTRUMENT OR MODE OF OPERATION, AT MINIMUM, THAT PEACE WOULD HAVE TO BE REMOVED.

>> I ASKED EARLIER IF THERE WAS GUIDANCE FOR THE PILOTS ON THE A300 TO ABANDON APPROACH. IS THERE GUIDANCE TO OF BEEN AN APPROACH IF THEY DO NOT GET WHAT THEY ARE PLANNING ON?

>> IT WOULD BE THE EXPECTATION, AND IT COMES BACK TO THE APPROACH BRIEF, BOTH CREWMEMBERS WERE -- THERE WAS A THIRD CREW MEMBER ON BOARD. THEY HAVE TO HAVE A SHARED MODEL. THAT WOULD BE THE APPROPRIATE EXPECTATION. THAT IS REINFORCED IN TRAINING AS WELL.

>> IS THAT ARTICULATED IN THE GUIDANCE MATERIAL?

>> IT IS AS IT RELATES TO THE APPROACH BRIEFING AND THE CRITERIA ASSOCIATED WITH THAT. IF AN ELEMENT WITH IN THAT BRIEFING WERE TO CHANGE, THE EXPECTATION WOULD BE EASIER TO RE-BRIEF IT OR BUILD YOURSELF SOME TIME. TAKE A RADAR VECTOR FOR THAT APPROACH.

>> YOU BRING UP EXHIBIT 20G, PL EASE?

>> THIS REFERS TO THE FLIGHT OPERATIONS MANUAL. FOR STANDARD APPROACH BRIEFING. IS THIS THE GUIDE? IS THIS THE TEMPLATE THAT ALL PILOTS ARE USING?

>> YES, IT IS.

>> WE NOTICED THAT THERE IS A BRIEFING ITEM IN HERE THAT TALKS ABOUT ANTICIPATED WHETHER. IT TALKS ABOUT ANTICIPATED WEATHER AND WE NOTICED THAT IT WAS NOT IN THE FOM. IS THIS THE OVERRIDING TEMPLATE THAT SHOULD BE USED FOR STANDARD APPROACH BRIEFINGS?

>> IT IS.

>> STAYING WITH THAT ANTICIPATED WEATHER, WHAT SORT OF INFORMATION ARE PILOTS TRAINED TO USE?

>> MOST THINGS THAT WE TRAIN IS TOO BRIEF AS EARLY AS POSSIBLE. THAT IS ONE OF THE SOPS. WITH THAT IN MIND, THE ANTICIPATED WEATHER WOULD BE RECEIVED VIA ACARS. THEY WOULD PULL THE WEATHER REPORT OR IF IT IS DIGITAL, IT IS PRODUCED BY THE AIRPORT ITSELF. THEY WOULD PULL THAT UP. THAT IS THE PREFERRED METHOD. YOU CAN PULL THAT UP HOURS IN ADVANCE. THAT WOULD BE THE CRITERIA WHICH WOULD BE USED IN TERMS OF ANTICIPATED WEATHER. THAT WOULD BE PART OF THE BRIEFING IN

TERMS OF HOW IT MIGHT AFFECT THAT APPROACH.

>> SO ACARS WOULD LIKELY BE THE MOST CURRENT INFORMATION.

>> IT IS THE MOST CURRENT. AS IT RELATES TO DIGITAL GUIDANCE, YOU CAN PROGRAM THE ACARS, WHICH IS THE COMPUTER THAT WE RECEIVE DIGITAL INFORMATION ON, TO AUTOMATICALLY UPLOAD THE LATEST INFORMATION.

>> WOULD YOU SAY IT IS IMPORTANT FOR PILOTS TO HAVE THE MOST CURRENT INFORMATION RELATIVE TO WEATHER?

>> IT IS IMPORTANT AS IT RELATES TO THE APPROACH BRIEFING ITSELF. I WOULD SAY IT IS CRITICAL PRIOR TO ACTUALLY INITIATING. THERE ARE CERTAIN REQUIREMENTS THAT YOU HAVE TO HAVE PRIOR TO INITIATING AND APPROACH.

>> DOES UPS TRAIN A300 UNDER TRADITIONAL 121?

>> ATP.

>> WHAT IS THE OVERALL PHILOSOPHY OF TRAINING?

>> IT IS A VOLUNTARY METHOD OF TRAINING FOR FLIGHT CREWS. IT REQUIRES US TO MEET OR EXCEED THE STANDARD 121. RELATIVE TO TRAIN ON CARRIERS -- OUR PROGRAMS ARE VERY DATA-DRIVEN. IT REQUIRES US TO NOT ONLY CALIBRATE OUR INSTRUCTORS, COLLECT DATA, PROCESSED DATA, AND MAKE CHANGES APPROPRIATELY -- THAT PROGRAM THEN THAT IS FORWARDED TO OUR POI FOR REVIEW AND APPROVAL. ONE OF THE METHODOLOGIES THAT WE ARE REQUIRED TO EXECUTE IS CALLED AND ISD PROCESS. ANY CHANGE THAT WE MAKE TO A TRAINING PROGRAM HAS TO BE WELL THOUGHT OUT. IT HAS TO BE ARTICULATED FROM A DATA PERSPECTIVE. WE HAVE TO DEFINE WHAT SUCCESS WOULD LOOK LIKE AND WE HAVE A QUALITY ASSURANCE PROGRAM.

>> OUR NON-PRECISION PRESENT -- APPROACHES, ARE THEY A TRAINED PROFICIENCY?

>> THERE IS A TRAINED PROFICIENCY CONCEPT. WHAT THAT ESSENTIALLY MEANS IS THAT WHEN A CREW MEMBER ANSWERS THE TRAINING PROGRAM, THEY WILL NOT LEAVE UNTIL THEY ARE TRAINED OR TRAINING HAS BEEN EXHAUSTED. THE CONCEPT IS -- IT IS A TRAINED PROFICIENCY. IF A PARTICULAR CREW MEMBER NEEDS ADDITIONAL TRAINING TO BECOME PROFICIENT, THAT INFORMATION IS BEEN DOCUMENTED.

>> HOW DOES UPS MONITOR THE EXECUTION OF NON-PRECISION APPROACHES IN TERMS OF SIMULATOR AND LINE OPTIONS?

>> IN THE SIMULATOR, IT STARTS OFF IN A QUALIFICATION PROGRAM. THAT IS THE INITIAL TRAINING PROGRAM. FOR EITHER A NEW CREW MEMBER OR A CREW MEMBER GOING TO A NEW PIECE OF EQUIPMENT. IT IS ALSO FURTHER TRAINED WHEN A CREW MEMBER UPGRADES OR QUALIFIES. THEN IT IS ALSO TRAINED AND EVALUATED IN THE CURRENT TRAINING.

>> YOU MENTIONED EARLIER THAT IT WAS DATA-DRIVEN. WHAT DATE ARE YOU USING?

>> OUR INSTRUCTORS ARE TRAINED ON THE QUALIFICATIONS. THAT IS THE PARAMETERS AND SPECIFIC TASKS ASSOCIATED WITH NON-PRECISION APPROACHES. THEY COLLECT DATA AND IT IS DONE THROUGH A MATRIX. THE CREW MEMBER EITHER MEETS QUALIFICATION STANDARDS OR THEY ARE BELOW STANDARDS. THOSE THAT ARE BELOW NEED TO BE REMEDIATED. THAT DATA IS USED IN A COUPLE OF WAYS. IT IS USED AS A RELATES TO THAT -- MEETING THE QUALIFICATION STANDARDS. IT IS ALSO A METHODOLOGY USED TO ASSESS THE VIABILITY OF THE PROGRAM ITSELF. THEY MAY CHOOSE PROGRAM WIDE.

>> WE NOTICED DURING THE REVIEW OF THE SYLLABUS THAT THE 2012 AND 2013 LOE, THE EVALUATION PORTION, INCLUDED NON-PRECISION APPROACHES. THE MOST RECENT RECURRENT INCLUDED NON-PRECISION APPROACHES. WHAT DATA DID YOU OR UPS SEE THAT REQUIRED OR PRECIPITATED INCLUDING NON-PRECISION APPROACHES IN THE CURRENT CYCLE?

>> THERE ARE A COUPLE OF THINGS. ONE, THE DATA IN ITSELF -- WHAT WE LOOK AT HIS FREQUENCY. AS CAPTAIN MIDDLETON INDICATED, IT IS WITH A FEW EXCEPTIONS. MOST PILOTS DO NOT SEE A LOT OF NON-PRECISION APPROACHES. AS A RESULT, WE INTUITIVELY WILL INCLUDE NON-PRECISION APPROACHES. IN ADDITION TO THAT, IT IS AN OPPORTUNITY TO EVALUATE A CREW MEMBER'S KNOWLEDGE AND AN OPPORTUNITY TO REALLY EVALUATE THE CRM ASSOCIATED. IT TAKES A FAIR AMOUNT OF COORDINATION AND TEAMWORK TO EXECUTE ONE FLAWLESSLY. AS A RESULT, THOSE ARE GOOD INDICATORS.

>> DOES UPS --TWICE NOW WE HAVE HEARD THAT THIS IS NOT SOMETHING THAT THE PILOTS SEE OFTEN. DO PILOT LOG NON-PRECISION APPROACHES ON A REGULAR BASIS? IS THERE ANY WAY TO COLLECT DATA?

>> THE ONLY DATA THAT WE ARE REQUIRED TO COLLECT IS NOT RELATIVE TO THE ACTUAL INDIVIDUAL PILOT. IT IS RELATIVE TO THE MAINTENANCE OF THE AIRCRAFT. THAT IS THE CAT2 OR 3 AUTOLAND.

>> IS THAT THROUGH THE CURRENT SYSTEM?

>> YES.

>> THEY LOG CAP THREE APPROACHES. IS THERE A MEANS THAT THEY CAN LOG NON-PRECISION APPROACHES?

>> THERE CURRENTLY IS NOT A WAY TO DO THAT. I THINK INTUITIVELY, WE KNOW THAT THERE ARE NOT THAT MANY FLOWN. AS A RESULT, WE INCLUDE THAT IN TRAINING. WE ALSO ENCOURAGE AND OPERATING EXPERIENCE WHERE A CAPTAIN LEAVES THE TRAINING CENTER. THEIR NEWLY QUALIFIED ON THAT AIRCRAFT. WE HIGHLY ENCOURAGE THAT THIS IS WRITTEN IN THEIR MANUAL. THEY CONDUCT THE NON-PRECISION APPROACH IF POSSIBLE. THERE ARE MANY CASES THAT THIS IS NOT POSSIBLE AS A RESULT OF IT NOT BEING THE PREFERRED APPROACH. IF YOU GO INTO A BUSY AIRPORT, SOME REPORTS WILL NOT EVEN HAVE A NON-PRECISION. IT IS NOT ALWAYS PRACTICAL. WE ATTEMPT TO DRIVE OUR CREWMEMBERS.

>> YOU MENTIONED THAT YOU DO ENCOURAGE THE INSTRUCTORS TO MAKE SURE THAT THE STUDENTS ARE ON OE. THAT IS A PSEUDO-TRAINING OPERATION. HOW DOES UPS ENCOURAGE THEIR PILOTS TO PRACTICE?

>> I DO NOT BELIEVE THAT THERE IS ACTUAL VERBIAGE THAT WOULD INDICATE THAT. HOWEVER, WE DO HAVE VERBIAGE RELATIVE TO AUTOMATION POLICIES. TO THE EXTENT THAT WE HAVE ASKED CREW MEMBERS TO ENSURE THAT THEY CAN HAND FLY. THAT IS NOT THE SAME RELATIVE TO NON-PRECISION.

>> HAS UPS CONDUCTED ANY AUDITS OF OPERATIONS?

>> WE HAVE NOT CURRENTLY. THAT IS UNDER EVALUATION.

>> CAN I JUST JUMP IN? I WOULD LIKE TO REMIND EVERYONE TO PROJECT. WE HAVE A LOT OF PILOTS WHO ARE ASKING FOR PEOPLE TO SPEAK UP.

>> GOOD MORNING. DOES THE FAA KNOW HOW MANY NON-SPECIFIC APPROACHES PILOTS ARE EXECUTING?

>> I AM NOT AWARE OF ANY NATIONAL PROGRAM THAT MONITORS THAT.

>> IS THERE ANY DATA COLLECTION THAT IS ON THE HORIZON OR ARE THERE ANY PROGRAMS TO TAKE A LOOK AT HOW MANY NON-PRECISION APPROACHES THESE PILOTS ARE CONDUCTING?

>> I AM NOT AWARE OF ANY PROGRAMS THAT DIRECTLY ASSOCIATE. WE DO HAVE SOME DATA SOURCES THAT WOULD IDENTIFY PARTICULAR PARAMETERS ASSOCIATED WITH APPROACH OPERATIONS.

>> OK. I ASKED THE CAPTAIN IF THEIR OPERATION IN THEIR COMPANY WAS ENCOURAGING THEIR CUP -- PILOTS TO PRACTICE. IS THERE ANY GUIDANCE FROM THE FAA TO ENCOURAGE PILOTS TO PRACTICE NON-PRECISION APPROACHES?

>> I AM NOT AWARE OF ANY. AT A NATIONAL LEVEL. I THINK OUR EXPECTATION IS THAT IF THERE ARE TRENDS FROM A RISK STANDPOINT, OUR EXPECTATION IS THAT APPROPRIATE ACTIONS WOULD BE TAKEN. WE DO NOT HAVE ANY ON A NATIONAL STANDPOINT. ENCOURAGING PILOTS TO EXECUTE NON-PRECISION APPROACHES.

>> THANK YOU. PLEASE BRING UP THE EXHIBIT TWO. THIS IS ADVISORY 120 --WHAT IS THIS?

>> 120-08 DESCRIBES ACCEPTABLE RECOMMENDED METHODS FOR CONDUCTING CONTIGUOUS TO SEND APPROACH. THE BACKGROUND ON THIS ALSO IS ASSOCIATED WITH RELATED REFERENCE MATERIALS. THAT IS OUR STANDARD OPERATING PROCEDURE. THIS GREW OUT OF MANY YEARS OF OPERATIONAL EXPERIENCE. I WILL LEAVE IT TO THE OPENING REMARKS. THEY ARE DESIGNED IN A STAIRSTEP FASHION. FOR MANY YEARS, THEY WERE CONDUCTED IN A VERNACULAR THAT THAT. EACH WOULD BE ALONE AT A CERTAIN ALTITUDE UNTIL YOU REACH THE NEXT POINT. IN THE 1990'S, I THINK THERE WAS A GROWING AWARENESS THAT THE DIVE AND STRIVE METHOD PROBABLY WAS NOT PREFERRED. FOR A NUMBER OF REASONS. AT THAT TIME, THAT, ALONG WITH THE

FREQUENCY OF ACCIDENTS AND INCIDENTS, THE INDUSTRY GOT TOGETHER AND BEGAN PROMOTING TWO THINGS. ONE, GREATER DEVELOPMENT OF 3-D APPROACHES. PROCEDURES WITH VERTICAL GUIDANCE. ILS AND GPS APPROACHES. AS WELL AS GREATER ENCOURAGEMENT OF TECHNIQUES AND USE OF AVAILABLE TECHNOLOGY TO FLY A VERTICAL PROFILE ON NON-PRECISION APPROACHES. THIS OUTLINES SOME OF THOSE TECHNIQUES AND THE ADVANTAGES OF CONTINUOUS DESCENT.

>> YOU MENTIONED SOMETHING INTERESTING. YOU SAID THAT THE DIVE AND STRIVE -- YOU ARE TRYING TO GET AWAY FROM THAT FOR A NUMBER OF REASONS. CAN YOU EXPLAIN SOME OF THOSE?

>> I THINK THAT DIVE AND DRIVE IS NOT INHERENTLY UNSAFE. WE RECOGNIZE THAT IT IS A SAFETY ENHANCEMENT. IF YOU GO TO PAGE TWO, ACTUALLY, IT TALKS ABOUT THE ADVANTAGES. SOME OF THESE ADVANTAGES INCLUDE IMPROVED SITUATIONAL AWARENESS AND REDUCED PILOT WORK LOAD. IMPROVED EFFICIENCY. THERE ARE ALSO SIMILARITIES TO OTHER OPERATIONS. FOR EXAMPLE, THERE IS GUIDANCE FOR PRECISION OPERATIONS. YOU CAN SEE THAT ON THE NEXT PAGE AS WELL. THERE IS ALSO A REDUCED PROBABILITY OF INFRINGEMENT ON THE REQUIRED OFFICE OF SERVICES. IF YOU SPENT LESS TIME, THERE IS LESS CHANCE THAT YOU WILL ACTUALLY PENETRATE THE ALTITUDE.

>> THE CIRCULAR IS DESCRIBING THE TECHNIQUE FROM CORRECT?

>> YES. THERE IS A SPECIFIC SECTION -- NO EQUIPMENT IS REQUIRED. THERE ARE A NUMBER OF TECHNIQUES THAT CAN BE USED AS WELL AS EQUIPMENT. FROM A BAROMETRIC NAVIGATION TO A COMBINATION OF TIMING -- THERE'S FLEXIBILITY.

>> IF THERE ARE INHERENT RISKS, YOU HAVE AN ADVISORY CIRCULAR. WHY DOESN'T THE FAA MANUALLY DO THIS?

>> THERE ARE CERTAIN, WE ALSO INCLUDE THIS IN THE CIRCULAR, THERE ARE CERTAIN TYPES OF OPERATIONS IN DESIGNS THAT DO NOT LEND THEMSELVES TO THE CONDUCT. WE SPEAK TO THAT IN THE RECOMMENDATIONS. THE STATE OF AFFAIRS TODAY VERSUS WHAT IT WAS 20 YEARS AGO, I THINK IT HAS BECOME THE INDUSTRY NORM ACROSS THE BOARD. WE CONTINUE TO ENCOURAGE THAT. THERE ARE TIMES WHEN IT MIGHT BE NECESSARY TO DO SOME THEY MORE IN LINE WITH DIVE AND DRIVE. WITH GOING DOWN TO THE MINIMUM. IF YOU BRING UP THE TRAINING SECTION, I CAN SPEAK TO THEM MORE. OUR SPONSOR HIM THE PAST ABOUT WHY WE HAVE NOT REQUIRED THIS IS -- WE HAVE ACHIEVED THE INDUSTRY STANDARD OF HAVING THIS APPROACH. THE APPROACHES CONDUCTED. THERE IS A CERTAIN AMOUNT OF FLEXIBILITY REQUIRED IN OPERATIONS.

>> HOW DO YOU KNOW OPERATORS ARE INCORPORATING THIS TECHNIQUE?

>> WE HAVE INCORPORATED, ALONG WITH THIS CIRCULAR, WE HAVE CIRCULAR 127 THAT SPEAKS TO THIS. WE ALSO HAVE INSPECTOR GUIDANCE. LATE STANDARDS INFORMATION MANAGEMENT SYSTEM -- WE ALSO HAVE UNDER OUR OPERATION SPECIFICATIONS, VARIOUS METHODS AT A FIELD LEVEL. WE HAVE AWARENESS OF HOW THESE OPERATIONS ARE CONDUCTED.

>> CAPTAIN MIDDLETON, ON THE A300, DO YOU TRAIN YOUR PILOTS TO INCORPORATE VARIOUS SPEEDS? DO YOU INCORPORATE THE TECHNIQUES OF THE CIRCULAR WHEN YOU

CONDUCT BURKETT -- VERTICAL SPEED?

>> ABSOLUTELY.

>> WHERE IS THAT GUIDANCE?

>> IN THE PILOT TRAINING GUIDE.

>> THE PILOT TRAINING GUIDE -- THAT IS THE FIRST TIME I HAVE HEARD THAT. YOU MENTIONED EARLIER THAT THE OPERATING MANAGER -- THAT IS AN FAA APPROVED DOCUMENT. WHAT IS THE PTG?

>> IT IS A TOOL THAT WE USE TO -- IT IS BEST PRACTICES AND TECHNIQUES TO ACCOMPLISH THE GOALS THAT ARE IN THE AOM.

>> IS THAT MANUAL THE PTP AN FAA APPROVED MANUAL?

>> IT IS AN INTERNAL DOCUMENT.

>> FLEETWIDE AT UPS, ARE THEY INCORPORATING THE TRAINING TECHNIQUES?

>> FLEETWIDE, YES. BY MODE OF OPERATION, THAT WOULD TAKE CARE OF ITSELF. THE PROFILE WOULD -- IT WOULD ALLEVIATE THAT. IT ALSO MEETS THE QUALIFICATION STANDARDS, AS INDICATED. IT WOULD BE RECORDED AS A QUALITY ESCAPE. AN ACCEPTABLE MANEUVER IF THERE WAS A DIVE AND DRIVE. I WOULD BE ACROSS ALL FLEETS.

>> IF I COULD, COULD YOU DEFINE WHAT A STABLE APPROACH CRITERIA IS?

>> IT IS LOCATED IN OUR FOM. ESSENTIALLY, IT IS ALSO REPLICATED IN EACH OF THE AIRCRAFT MANUALS.

>> WHAT IS THE EXPECTATION OF THE UPS PILOT UPON ARRIVAL AT 10,000 FEET? I ASSUME THAT 1000 FEET IS THE STABLE APPROACH CRITERIA?

>> THAT IS CORRECT.

>> COULD YOU BRING A PAGE THREE PLEASE?

>> THIS IS THE FOM REFERENCE YOU ARE TALKING ABOUT? AT ARRIVAL AT 1000 FEET, WHAT IS THE EXPECTATION OF THE PILOT?

>> THE REQUIREMENT WOULD NEED TO DISCONTINUE THE APPROACH AND EXECUTE A MIXED APPROACH.

>> WHO MAKES THE CALL?

>> ANY OF THE THREE CREWMEMBERS. I SAY THREE IF IT IS A LONG FLIGHT. THE CAPTAIN AND THE FIRST OFFICER -- THEY ARE MONITORING. AS WELL AS THE IRO. THEY ARE REQUIRED TO CALL.

>> CAN YOU BRING UP EXHIBIT 2?

>> CAPTAIN MIDDLETON, THESE ARE THE CALLS FOR A NON-PRECISION APPROACH ON THE A300.

>> THAT IS CORRECT.

>> ARE THESE IDENTICAL?

>> YES.

>> AT 1000 FEET ABOVE TOUCHDOWN, THE PILOT SAYS THAT THE INSURANCE ARE CROSS CHECKED. WHAT IS BEING CROSS CHECKED?

>> TO INDICATE THAT THE INSTRUMENTATION IS READING THE VERTICAL GUIDANCE, AIRSPEED, THE NO FLAGS REFERENCES IF ONE OF THE INSTRUMENTS WERE TO BE SHOWING A FAULT. THAT IS A TERM USED TO INDICATE THAT THERE IS A FAULT. NO FLAGS MEANS NO FALSE.

>> THERE IS A 500 FOOT CALL DOWN. IT SAYS ON SPEED, IS THIS A STABLE APPROACH CALL?

>> ESSENTIALLY, YES.

>> IS STABLE APPROACH CRITERIA STILL 1000 FEET?

>> IT IS THE SAME, YES.

>> CAPTAIN, HAS UPS TAKEN A LOOK AT INITIATING A STABLE APPROACH CALL AT 1000 FEET?

>> WE ARE EVALUATING THAT.

>> WHERE IS THAT IN THE PROCESS?

>> IN INTERNAL REVIEW. WE HAVE DISCUSSED WITH THE LOCAL OFFICE. WE HAVE NOT YET COME TO AN AGREEMENT. OR HOW THAT MIGHT BE WORDED.

>> I AM SORRY TO GO BACK AND FORTH. I WANT TO ASK. FOR THE PILOT MONITORING -- WHAT IS THE DELINEATION OF DUTIES AS FAR AS LOOKING OUT OF THE COP IT -- COCKPIT? IS THE PILOT INSIDE THE ENTIRE TIME OR LOOKING UP? WHERE ARE THEY LOOKING?

>> IT DEPENDS WHAT TYPE OF APPROACH YOU'RE DOING. A PRECISION APPROACH IS DIFFERENT. ESSENTIALLY, THE APPROACHING MINIMUM IS -- IT IS INSIDE. IT LEADS TO THE PILOT FLYING. THE INFORMATION IS RELEVANT TO THEIR POSITION. GETTING CLOSE TO THE POINT WHERE WE HAVE TO MAKE DECISIONS. THUS, THE PERSON WHO HAS TO MAKE THE DECISION HAS TO DO THAT BASED ON THEIR ABILITY TO CONTINUE FLYING. THEY ARE LOOKING MORE OUTSIDE THAN IN. THE PILOT IS LOOKING INTO VERIFY.

>> TO BE CLEAR, WHAT ARE THE STABLE APPROACH IS HERE? WHAT ARE THOSE CRITERIA?

>> OK. THE AIRCRAFT PASSES THROUGH 1000 FEET. THERE ARE SIX ITEMS. THE FIRST IS THAT THEY ARE IN THE LANDING CONFIGURATION. THE FLAPS ARE WHERE THEY NEED TO BE. THE LANDING CHECKLIST IS COMPLETE. THE SECOND ITEM IS THAT THE AIRSPEED HAS TO BE PLUS 10 OR MINUS FIVE. WHATEVER THE REFERENCE IS. THE THIRD ITEM SAYS THAT THE AIRCRAFT CANNOT BE SINKING MORE THAN 1000 FEET PER MINUTE. THERE IS A PROVISION THAT IT CAN BE MORE, BUT ONLY IF YOU HAD A FLIGHT CONTROL ANOMALY OR SOMETHING CAUSING THAT. IT COULD BE AS MUCH AS 1200. IT IS 1000. THE FOURTH ITEM IS IT HAS TO BE IN A STABLE POSITION. A LANDING CAN OCCUR -- THAT IS BASICALLY WHERE I NEED TO BE. SUCH THAT I AM NOT TOO LOW. THE FIFTH ITEM IS -- BY 200 FEET, THE AIRCRAFT HAS TO BE ALIGNED. YOU CANNOT COME IN AT AN ANGLE. THE THRUST HAS TO BE SPOILED SUCH THAT IT IS MAINTAINING SPEED. ALL SIX OF THESE THINGS HAVE TO HAPPEN.

>> IS THERE ANY CASE WHERE 1500 FEET VERTICAL SPEED DOWN WOULD CONSTITUTE STABLE APPROACH?

>> FROM 1000 FEET DOWN? NO.

>> CAPTAIN CHRIS, YOUR THOUGHTS?

>> WHAT IS THE AIR BUS STABLE APPROACH CRITERIA?

>> IS THE SAME AS THAT FOR UPS. THE AIRCRAFT IS ON THE FLIGHT PATH. THEY'RE USING THE DESIRED LANDING CONFIGURATION. IT IS THAT SPEED THAT IS DESIRED. WITH THE CORRECT THRUST. THERE IS NO EXCESSIVE FLIGHTPATH OR PERIMETER OF DERIVATION.

>> I SHOULD HAVE ASKED -- AT UPS, WHO CALLS?

>> EITHER PILOT.

>> BASED ON FAA GUIDANCE, HOW IMPORTANT IS STABLE APPROACH CRITERIA WHEN CONDUCTING A NON-PRECISION APPROACH?

>> I THINK OUR GUIDANCE MATERIAL EMPHASIZES THAT IT IS IMPORTANT FOR ALL OPERATIONS.

>> ONE MORE TIME, BACK TO CAPTAIN MIDDLETON. THE PILOTS OF THE ACCIDENT FLIGHT RECEIVED GROUND PROXIMITY WARNINGS. THEY RECEIVED A SINGLE RATE ALERT. WHAT IS THE RESPONSE REQUIRED?

>> TO IMMEDIATELY DO SOMETHING TO MAKE IT STOP OR GO AROUND.

>> CAN YOU EXPAND ON THAT? WHAT IS MAKE IT STOP?

>> TO MANIPULATE, YOU HAVE TO TAKE POSITIVE CONTROL OF THE AIRCRAFT. WHETHER THROUGH AUTOMATION OR MANUALLY. YOU HAVE TO TAKE POSITIVE CONTROL TO SHALLOW THE SINK RATE. THAT IS THE ONE YOU GAVE. YOU LOWER THE VERTICAL SPEED.

>> DOES IT REQUIRE A GO AROUND?

>> NO.

>> WHAT ABOUT A TOO LOW TERRAIN?

>> THAT REQUIRES A GO AROUND.

>> INITIATION OF A TOO LOW TERRAIN IS IMMEDIATE GO AROUND?

>> YES.

>> THAT IS ALL OF THE QUESTIONS THE TECHNICAL PANEL HAS.

>> THAT CONCLUDES THE QUESTIONS.

>> THANK YOU. WE ARE ON A TIGHT SCHEDULE. WE WILL TRY TO STICK TO IT. WE WILL TAKE A 15 MINUTE BREAK AND START PROMPTLY BACK AT 10:15. WE WILL MOVE TO QUESTIONS.

>> IF EVERYONE COULD TAKE THEIR SEATS. WELCOME BACK. WE WILL NOW CONTINUE WITH QUESTIONS FROM THE PARTIES. WE WILL BEGIN WITH UPS.

>> THANK YOU, MADAM CHAIRMAN. THIS QUESTION IS DIRECTED TOWARD THE CAPTAIN. CAN YOU ELABORATE ON WHAT YOU SUSPECT THE RESPONSE WILL BE? THE SINK RATE CAUTION WAS RECEIVED BELOW 1000 FEET.

>> THE EXPECTED RESPONSE BELOW 1000 FEET IN THAT PARTICULAR CASE WOULD BE TO EXECUTE A GO AROUND OR IF THERE IS ANY DOUBT AS TO THE AIRCRAFT POSITION, THEN EXECUTE A MANEUVER WHICH IS MORE AGGRESSIVE WHERE YOU DISCONNECT THE AUTOPILOT AND BUILD A FIREWALL. YOU ROTATE THE NOSE TO 20 DEGREES. THAT IS WHAT CAPTAIN MIDDLETON REFERS TO AS THE GENERAL GUIDANCE. THE CAVEAT TO THAT WOULD BE THAT IF YOU ARE BELOW 1000 FEET, AT MINIMUM, THE ONLY TIME YOU COULD GET THAT PARTICULAR WARNING WOULD BE IF YOU EXCEED THE STABILIZED APPROACH KATERI A -- CRITERIA. THERE IS A GRAPH THAT SHOWS THE SINK RATE NECESSARY TO TRIGGER THAT ALERT RED BELOW 1500 FEET, YOU WOULD EXCEED THE RATE OF DISSENT. THE GENERAL GUIDANCE, ABSOLUTELY, BUT SPECIFICALLY AS IT RELATES TO THE HARD GO AROUND -- ANY DOUBT WOULD REQUIRE CFIT.

>> IN A CERTAIN INSTANCE, WOULD THAT CERTAIN CAUTION OCCUR ABOVE 1500 FEET?

>> THE SINK RATE IS ACTUALLY TRIGGERED AT 2500 FEET ABOVE THE GROUND. IN THAT INSTANCE, IF YOU WERE BEING PUSHED BY DOWNWINDS, IT WOULD BE DEPENDING ON THE SINK RATE. IT WOULD BE APPROPRIATE TO ADJUST THE RATE OF DISSENT. -- DESCENT.

>> PRIOR TO AN APPROACH, YOU MENTIONED A COUPLE SOURCES OF WHERE CREWS CAN GET WEATHER INFORMATION VIA ACARS. CAN YOU ELABORATE ON WHAT OTHER SOURCES MIGHT BE AVAILABLE? IS ATUS THE INFORMATION THAT THEY USED TO EXECUTE THE APPROACH?

>> IT IS CONSIDERED CRITICAL RELATIVE TO WEATHER PRIOR TO EXECUTING AND APPROACH. THE MODE THAT WE USUALLY USE IS A DIGITAL ATUS THAT WE RECEIVED OVER ACARS. NOT ALL REPORTS HAVE BEEN. THE OTHER MODE IS A RECORDED VOICE COMMUNICATION. WE WOULD LISTEN TO THAT. IT IS THE MODE OF HOW TO RECEIVE IT.

>> ONE LAST QUESTION -- IT WAS MENTIONED THAT UPS DOES PROMOTE A CONSTANT ASCENT RATE. THAT WAS IN THE AIRBUS TRAINING GUIDE. IS THIS AVAILABLE ANYWHERE ELSE?

>> IT IS.

>> THANK YOU. THAT IS ALL.

>> THANK YOU. IPA>

>> COULD YOU PLEASE BRING UP EXHIBIT TWOA? YOU SAID THAT IT IS GUIDANCE. IS IT ACTUALLY WRITTEN ANYWHERE THAT THERE IS A SINK RATE CALL THAT IS WRITTEN WHERE YOU WILL DO A GO AROUND OR I.T. REMOVER?

>> IT IS ACTUALLY CHELATED IN THE READING AMBLE PRIOR TO THE GRAPH ESSENTIALLY, THE CHART THAT INDICATES . THE CRUISE WILL TAKE IMMEDIATE ACTION WITH THE GPS. THE ALERT CONTINUES AND IF THERE ARE ANY DOUBTS CONCERNING THE SAFETY OF THE AIRCRAFT, IT ALSO IS ARTICULATED AND MANDATED THAT WE CANNOT EXCEED THE RATE OF DISSENT PAST 1000 FEET AS IT RELATES TO THE STABILIZING. IN THOSE TWO CASES, THAT WOULD PRECLUDE THE GENERAL GUIDANCE. THIS GUIDANCE RELATES TO THE CAUTION ALERTS. YOU HAVE TO TAKE INTO CONSIDERATION WHERE IT IS. TO DETERMINE WHAT IS THE APPROPRIATE ABBREVIATION.

>> I WOULD LIKE TO REFER TO THE PARAGRAPH THAT STATES, LIST THE SINK RATE ALERT. SILENCE THE WARNING FOR YOUR AOM. I DO NOT SEE THAT YOU HAVE TO DO A GO AROUND.

>> I AM REFERRING TO FOM 0-1, 0-2, 0-3. IT IS UNDERLINED.

>> CAPTAIN MIDDLETON, AS A CHECK AIRMAN IN THE AIRPLANE, CAPTAIN LAWRENCE REFERRED TO THE PILOT TRAINING GUIDE IS BEING REFERENCE ONLY. IN YOUR OPINION, IS THERE ANYTHING THAT YOU CAN FIND OR YOU CAN RECALL, THAT WOULD CONTRADICT OR WOULD BE INCONSISTENT BETWEEN THE TWO MANUALS?

>> WITH THIS DISCUSSION, THERE IS A TECHNIQUE THAT IS TAUGHT IN THE TRAINING GUIDE THE REFERS TO THE HOV CHECK. PLEASE BRING UP EXHIBIT 2A. EARLIER ON, WE TALKED ABOUT ONE OF THE REQUIREMENTS. THAT IS THAT THE APPROACH WOULD HAVE TO BE PROPERLY EXTENDED. ON THE TOP OF PAGE 60, YOU CAN SCROLL DOWN. YOU CAN SEE THAT THERE IS THE HOV. THE E IS THE EXTENSION. IT MAKES SURE THAT IT IS SEQUENCED PROPERLY. YOU'LL ONLY FIND THE FLINTRIDGE AND PILOT TRAINING GUIDES. IT IS NOT IN THE AOM OR THE BRIEFING GUIDE.

>> TO CLARIFY, A PROCEDURE THAT IS USED FOR ALL APPROACHES IS VISUAL, PRECISION, AND NON-PRECISION APPROACHES -- IT IS ONLY FOUND IN A REFERENCE ONLY GUIDE OF THE PILOT TRAINING GUIDE?

>> THAT IS CORRECT.

>> THANK YOU, MADAM CHAIRMAN.

>> THANK YOU.

>> WE HAVE NO QUESTIONS, THANK YOU.

>> AIRBUS?

>> AIRBUS HAS NO QUESTIONS, THANK YOU.

>> FAA?

>> WE HAVE NO QUESTIONS.

>> THANK YOU TO THE PARTIES. WE WILL MOVE TO THE BOARD MEMBERS.

>> THANK YOU. CAPTAIN, I WOULD LIKE TO CLARIFY THIS. THIS IS ALSO ABOUT THE SINK RATE CALLS. I WOULD LIKE TO CALL UP EXHIBIT 2CC. WHILE THAT IS BEING CALLED UP, WHICH WOULD BE A HIGHER CONTROLLING DOCUMENT? THE AOM OR THE PILOT TRAINING GUIDES?

>> THE AOM WOULD BE THE HIGHER AUTHORITY.

>> WHAT I HAVE ASKED TO CALL A PEER IS FROM UPS. IT IS FOR EGP ALERT PROCEDURES. LET'S SCROLL DOWN. IT SAYS RIGHT THERE, FORCING GREAT, CAN YOU READ THAT -- FOR SINK RATE, CAN YOU READ THAT?

>> ADJUST PITCH ATTITUDE AND THRUST.

>> TO BE CLEAR, IT DOES NOT SAY IN THIS HIERARCHY, IN THIS HIGHER ORDER OF DOCUMENTS, IT DOES NOT SAY TO EXECUTE IN A STATEMENT OF HER OR CONDUCT A GO AROUND?

>> IT DOES NOT SAY THAT ON THE GRAPHIC. IT IS NOT IN RELATION TO OUR STANDARDIZED APPROACH CRITERIA.

>> SCROLL DOWN TO THE NEXT SECTION. YOU CITED THIS A FEW MINUTES AGO. UNDER THE SECTION THAT SAYS -- KEEPS ROLLING DOWN. ONE MORE. THE ONE THAT YOU HIGHLIGHTED SAYS THAT IT DOES NOT HIGHLIGHT THE CREW'S ABILITY TO TAKE ACTION. THAT IS UNDER A SECTION CALLED KNOWN GPWS. YOU ARE TALKING ABOUT AN AIRPORT WHERE YOU HAVE A NOON SITUATION. -- KNOWN SITUATION. IT IS NOT IN THE HIGHER ORDER OF THINGS FOR YOU ARE SAYING THIS IS YOUR GUIDANCE FOR THAT TYPE OF WORK. DO YOU ACKNOWLEDGE THAT?

>> I DO. IF I MAY, COULD WE SCROLL BACK UP?

>> PLEASE.

>> STOP RIGHT THERE, PLEASE. AGAIN, IT IS THE FLIGHT CREW CAN TAKE IMMEDIATE ACTION TO MAKE SURE THAT THE TURBULENCE IS NOT A FACTOR. THAT IS ALSO UNDER ALERT, WARNING ALERTS. SO, I THINK A CREW WOULD HAVE TO TAKE THE CONTEXT OF THAT INFORMATION. IN ANY CASE, FOR A SINK RATE ALERT TO GO OFF, YOU HAVE TO BE ON A STABILIZER. THAT IS CONTAINED IN THE SYSTEMS MANUAL.

>> PILOTS DO NOT OPERATE BY THE SYSTEMS NOW. THAT EXPLAINS HOW THE SYSTEMS WORK. THIS IS WHAT THE PILOTS ARE SUPPOSED TO DO. IF YOU LOOK UNDER THE HEADING OF THAT COLUMN, IT SAYS CREW RESPONSE. WHAT I AM TRYING TO SHOW IS THAT UNDER THE CREW RESPONSE, IT DOES NOT HAVE THE ANSWER THAT WHEN QUESTIONED BY CAPTAIN MILLS, THE ANSWER THAT YOU GAVE WAS NOT THE TEXTBOOK ANSWER THAT IS HERE. THE ANSWER THAT YOU GAVE WAS ACTUALLY ONE THAT IS LISTED IN THE A300 PILOT TRAINING GUIDE. IT SAYS THAT IF YOU GET THE SINK RATE AND YOU ARE IN IMC, IF THE FLIGHT IS OPERATING IN IMC, THE PILOT MUST OPERATE A GO AROUND. THE HIGHER ORDER OF DOCUMENTS THAT WE REFERRED TO HAS LESS SPECIFIC GUIDANCE THAN THE PALLET TRAINING GUIDE. WOULD YOU LIKE TO COMMENT ON THAT?

>> I REFER BACK TO THE FOM THAT SAYS YOU HAVE TO BE STABILIZED. ONE OF THE THINGS THAT WE USE -- PUT THIS INTO CONTEXT. GPS OR GPWS, THAT IS A -- ONE FACTOR OF A PIECE OF INFORMATION THAT CRUISE UTILIZE TO EXECUTE THE SAFE OPERATION OF ANY EVENT. WHETHER APPROACH OR TAKE OFF OR EN ROUTE. WE AS CREW MEMBERS DO NOT RELY ON THAT PER SE. IT MAY NOT WORK. SITUATIONAL AWARENESS, UNDERSTANDING WHERE YOU ARE IN SPACE, IF THERE IS EVER ANY DOUBT ABOUT THAT, YOU HAVE TO MOVE THE AIRCRAFT AWAY FROM THE GROUND. THAT IS AN SOP AND IT IS CLEARLY ARTICULATED IN THE STANDARD OPERATING PROCEDURE.

>> I WANT TO CLOSE FOR A SECOND. LET'S GO BACK TO THE EXAMPLE. LET'S LOOK AT IT ONE MORE TIME. DRAW THE DISTINCTION. THERE IS A WARNING ALERT -- SCROLL UP A LITTLE BIT. AND RIGHT HERE WHERE IT TALKS ABOUT A WARNING, IT SPECIFICALLY SAYS THE CREW RESPONSES TO PERFORM THE ESCAPE MANEUVER, RECOVERY MANEUVER BUT FOR THE SINK RATE, IT DOES NOT SAY THAT, AND THAT CONTRADICTS WHAT THE TESTIMONY WAS IN RESPONSE TO CAPTAIN MILLS'S QUESTION.

>> THESE CALL OUT HAVE TO BE TAKEN INTO CONTEXT WHERE THE AIRCRAFT IS IN SPACE AND TIME.

>> THANK YOU. I'M OUT OF TIME. I HAVE MORE QUESTIONS.

>> MEMBER WEENER.

>> I WOULD LIKE TO TALK ABOUT BEING AT 2500 FEET AT THE FINAL APPROACH. COMING 6800 FEET, THE AIRCRAFT WAS CLEARED FOR THE APPROACH, MAINTAIN 2500 ESTABLISHED. WHEN SHOULD HE HAVE GONE DOWN TO 2300 FEET, THE PUBLISHED ALTITUDE FOR THE FINAL APPROACH FIX? AND PERHAPS MR. MIDDLETON, HOW WOULD THAT BE TRAINED?

>> THE RULES SAY HE WOULD HAVE TO BE ESTABLISHED ON THE COURSE. SO ONCE THEY INTERCEPTED THE LOCALIZER WITH THAT CLEARANCE, HE WOULD BE ALLOWED TO GO DOWN TO 2300 FEET.

>> WHAT ARE THE PROCEDURES FOR INTERCEPTING A DESCENT PATH BEING 200 FEET HIGH ON THE FINAL APPROACH PHASE QUESTION MARK

>> THERE IS NOTHING SPECIFICALLY WRITTEN FOR THAT. THE PROCEDURES THAT WE HAVE ASSUMED YOU WOULD GET DOWN TO THAT ALTITUDE. SO IT WOULD BE UP TO THE CREW MEMBERS JUST TO RECOGNIZE THEY WERE 200 FEET HIGH PRIOR TO THAT POINT AND THEY -- THERE WOULD BE A FEW OPTIONS THEY COULD USE TO MANIPULATE THE AIRCRAFT DOWN 200 FEET. BUT THEY WOULD HAVE TO RECOGNIZE THAT AND TAKING POSITIVE ACTION TO MAKE IT HAPPEN.

>> ARE THERE ANY DIFFERENCES IN THE STABILIZED APPROACH CRITERIA FOR PRECISION VERSUS NON- PRECISION APPROACHES?

>> NO, SIR, IT APPLIES TO ALL.

>> VERSUS IMC

>>?

>> IT IS THE SAME.

>> AT UBS.

>> YES, SIR.

>> HOW MUCH EMPHASIS IS THEIR ON HAND FLYING PARTICULARLY ON NON-PRECISION APPROACHES.

>> THERE IS VERY LITTLE. WE DON'T TRAIN THEM TO BE FLOWN, HANDFUL OWN. AS YOU HEARD EARLIER, THERE ARE MANY THINGS THAT HAVE TO BE DONE, AND IT IS A FAIRLY COMPLEX PROCEDURE AND IT DEMANDS BOTH CREW MEMBER'S GREATEST ATTENTION SO WE RECOMMEND THE AUTOPILOT BE USED, AND IN FACT, YOU THE GUIDANCE PER THE AOM TELLS THEM EITHER THE FLIGHT DIRECTION GETS MAN-TO-MAN OR THE AUTOPILOT HAS TO BE USED. BUT ALL OF THE TRAINING IS SPECIFICALLY WITH THE AUTOMATION, TO NAVIGATE THOSE APPROACHES.

>> ALL OF THE TRAINING IS FOCUSED ON AUTOMATION. WHEN WOULD THEY EXPERIENCE HAND FLOWN APPROACHES.

>> DURING THE INITIAL QUALIFICATIONS WE DO EXPOSE THE CREW MEMBERS TO SITUATIONS WHERE, BECAUSE OF SUCH THINGS AS POWER FAILURES WHERE PARTS OF THE AUTOMATION MAY NOT WORK HIM A WHERE YOU MAY HAVE TO DO THAT. SO YOU DO GET TO SEE THAT IN THE INITIAL QUALIFICATION PHASE. AND WE HAVE REVISITED ON THE AIRBUS FROM TIME TO TIME ON THEIR CONTINUING -- WHEN THE COME BACK. THEY DO GET TIMES TO DO THAT, BUT IT IS FAIR TO SAY IT IS SMALLER THAN THE AMOUNT OF TIME THEY FLY THE AIRCRAFT AUTOMATED.

>> SO, THE POLICY IS FOR -- IN THIS CASE WOULD HAVE BEEN FOR A PROFILE DESCENT.

>> THAT IS WHAT THEY ARE BRIEFED TO DO AND WE WOULD ENCOURAGE THAT. THE BOOK SAYS, GIVEN THE TWO CHOICES, PROFILE OR VERTICAL SPEED, DO PROFILE, IF YOU CAN, UNLESS THERE IS A REASON YOU COULDN'T.

>> AND EMPHASIS BEING ON CONTINUOUS VERTICAL DESCENT.

>> ABSOLUTELY.

>> WHAT WOULD HAVE BEEN THE INDICATION -- THIS IS PROBABLY A QUESTION FOR AIRBUS -- WHAT WOULD HAVE BEEN THE INDICATION OF THE VERTICAL PROFILE SELECTION WOULD NOT BE ACTIVATED, WOULD NOT ACTIVATE?

>> THE INDICATION FOR THE PROFILE NOT BEING ACTIVATED WOULD BE THAT THE-PDESK INDICATED IN BLUE IN THE ARM STATE WAS THERE I WOULD NEVER CHANGE TO THE -- ACTIVE MODE.

>> WHAT WOULD BE THE RESPONSE OF THE REMOTE CONTROL PANEL? IN OTHER WORDS, WHEN HE SELECTED THE VERTICAL DESCENT PROFILE SELECTION, WHAT WOULD HAVE BEEN THE RESPONSE TO THE REMOTE CONTROL PANEL?

>> AT THE MOMENT THE PILOT REVERTS TO VERTICAL SPEED AND ENGAGES VERTICAL SPEED MODE, THIS -- THE PROFILE MODE.

>> IF HE PRESSES THE PROFILE BUTTON, DOES IT LIGHT UP, OR DOES IT JUST IGNORE THE INPUT?

>> NO, HE DID INDICATE THE PILOT HAS PRESSED THE PROFILE BUTTON.

>> SO IT GOES INTO AN ARMED STATE.

>> IT GOES INTO AN ARMED ESTATE AND WHEN THE CONDITIONS ARE FULFILLED IT WOULD GO INTO ACTIVE MODE, MEANING THE INDICATION WOULD BE GREEN. IF IT DOES NOT, IT STAYS IN THE ARMED MODE AND THE PILOT STAYS IN THE ACTIVE MODE THAT IS BEFORE. IN THIS CASE, IT WOULD BE THE ALTITUDE HOLD MODE. IT WOULD NOT GO INTO DESCENT.

>> INSTEAD OF SELECTING -- INSTEAD OF ACTIVATING OR HAVING PROFILE GO ACTIVE, BASICALLY ALTITUDE HOLD?

>> YES.

>> OK, THANK YOU.

>> MEMBER ROSEKIND?

>> CAPTAIN MIDDLETON, I WILL START WITH YOU. YOU WERE GOING THROUGH THE GUIDANCE FOR NON-PRECISION APPROACH AND IT SEEMED LIKE THE LINE WAS, THIS IS IMPORTANT, THIS IS CRITICAL. WHAT DO YOU EMPHASIZE A SORT OF THE TOP DEMAND, THE TOP PERFORMANCE ASPECT OF THE NON-PRECISION APPROACH? YOU COVERED SCREAM AND PROGRAMMING FMC AND MONITORING. WHAT DO YOU NEED TO

EMPHASIZE?

>> WHEN YOU LOOK AT THAT CHART, THERE ARE REALLY THREE THINGS THAT ABSOLUTELY CRITICAL. YOU LOAD THE APPROACH PROPERLY AND YOU SET IN THE MINIMUMS. THEN YOU HAVE TO TAKE AN ACTIVE STEP TO ACTIVATED, WHICH ACTUALLY TELLS THE COMPUTER I AM GOING TO DO AN APPROACH. THAT IS STEP TWO. PHYSICALLY PRESSING A BUTTON. THE THIRD THING YOU HAVE TO DO, YOU PHYSICALLY HAVE TO PRESS THE PROFILE BUTTON. IN AMONGST ALL OF THAT, THE OTHER THING THAT IS GOING ON IS THE CREW HAS TO MANIPULATE THE AIRCRAFT TO SLOW CONFIGURE AND GET A CHECKLIST DONE, BUT THOSE THREE ITEMS HAVE TO BE DONE. OR IT WON'T WORK.

>> LET ME SHIFT TO CAPTAIN LAURENTZ, YOU TALK ABOUT THE TRAINING THAT EMPHASIZES THOSE THINGS. SOME OF US HAD A CHANCE TO LISTEN TO WHAT WAS GOING ON, AND IN FACT, IT SOUNDS LIKE SOME PEOPLE WOULD LITERALLY JUST READ THE GUIDE. LIKE LINE BY LINE. WHAT YOU ARE SAYING IT IS GREAT TO READ EVERY LINE BUT YOU REALLY GOT TO EMPHASIZE A FEW THINGS. WHAT IS IN THE TRAINING THAT IS AVAILABLE TO EMPHASIZE THIS REALLY CRITICAL ELEMENT HERE?

>> THERE ARE CERTAIN ELEMENTS ASSOCIATED WITH QUALIFICATION STANDARDS. SO, WITHIN THE QUALIFICATION STANDARDS THERE ARE CERTAIN TASKS. SO THOSE ELEMENTS THAT CAPTAIN MIDDLETON JUST REFERRED TO AT SOME LEVEL WOULD BE ADDRESSED IN A QUALIFICATION STANDARD. SO, IF THERE WAS A DEVIATION FROM THAT EXPECTATION, THE CREW WOULD BE BE BRIEFED ON THAT. SO, ANY APPROACH, WHETHER NON-PRECISION OR VISUAL OR PRECISION APPROACH, WE HAVE MULTIPLE OPPORTUNITIES, WHETHER IT IS INITIAL TRAINING OR RECURRENT TRAINING, TO OBSERVE CREW MEMBERS CONDUCTING THESE TYPES OF APPROACHES. AS WELL AS IN-LINE OPERATIONS AS WELL. CERTAINLY IF IT WAS AN INSTRUMENT APPROACH.

>> CAPTAIN MIDDLETON, IN RESPONSE TO SOME QUESTIONS CAPTAIN LAURENTZ ANSWER, SOME GROUND BREAKING APPROACH. YOU SAID YOU DID TO NON-PRECISION APPROACHES LAST YEAR, I CAN ASSUME MORE LANDINGS. TELL US A MONEY LANDINGS THAT INVOLVE NON-PRECISION APPROACHES -- TELL US HOW MANY LANDINGS THAT INVOLVE NON-PRECISION APPROACHES?

>> HOW MANY LANDING.

>> THOSE TWO NON-PRECISION APPROACHES WERE AND HOW MANY LANDINGS?

>> A COUPLE OF HUNDRED. MORE SO THAN THAT.

>> WE ARE AT ONE PERCENT?

>> IT IS VERY FAIR TO SAY THAT. I THINK THE NUMBERS I GAVE YOU, I AM A LINE PILOT ALSO AND IS BE TO THE OTHER LINE PILOTS AND INSTRUCTORS -- AND IT IS NOT PULLING OUT OF THIN AIR THE NUMBERS. IT IS WHAT WE EVOLVED INTO. MOST PLACES WE GO HAVE -- THE MAJORITY OF TIMES THE CONDITIONS ARE SUCH WE DON'T EVEN NEED THAT. CONDITIONS ARE VISUAL. THE MAJORITY OF TIME HIGH LEVEL VISUAL APPROACH -- THAT THE BY I LEVEL. THERE ARE SMALL AMOUNT OF TIMES WHEN IT OCCURS.

>> THAT IS WHAT I WANTED TO SHIFT TO CAPTAIN LAURENTZ -- WHAT IS THE BASE RATE,

THE USUAL AVERAGE CREW MEMBERS WILL SEE NON-PRECISION APPROACH. I THINK HE ANSWER THAT THERE WAS NO DATA COLLECT IT ABOUT THIS. WHAT A MOVE THAT IS, IT IS GREAT TO TELL ABOUT THE ONE PERCENT BUT DO YOU HAVE ANY SENSE -- IF ALEC THE FAA DOES NOT COLLECT DATA ABOUT THIS, EITHER -- HOW YOU KNOW HOW OFTEN FOLKS ACTUALLY BEING CONFRONTED WITH HAVING TO PERFORM A NUMBER DECISION APPROACH? HOW RARE IS THIS?

>> GENERALLY SPEAKING, IT IS RARE, JUST AS CAP BEEN -- CAPTAIN MIDDLETON INDICATED. THERE ARE CERTAIN AIRPORTS WHERE IT IS THE PRIMARY APPROACH. IF YOU ARE A CREW MEMBER THAT ROUTINELY FLIES IN THEIR YOU OBVIOUSLY WOULD BE THE EXCEPTION RATHER THAN THE RULE. AS A RESULT, WE RECOGNIZE THAT. I AM NOT SURE THAT PUTTING A NUMBER OR A PERCENTAGE OF IT WOULD DRIVE US TO A DIFFERENT PLACE THAN WHERE WE ARE TODAY. AS A RESULT OF THAT, WE HAVE AN OPPORTUNITY CALLED FIRST LOOK. WHAT THAT FIRST LOOK IS, VERY FIRST SIMULATOR WE HAD THE OPPORTUNITY TO GIVE CREW MEMBERS THINGS THAT WE DO NOT PRE-BRIEF. THEY WALK IN AND ESSENTIALLY THEY WALK IN COLD AND THEY START FLYING A VARIETY OF DIFFERENT MANEUVERS IN A VERY REALISTIC ENVIRONMENT. IT IS NOT UNREALISTIC AT ALL. WE TRY TO REPLICATE LINE OPERATIONS. AND WE COLLECT DATA ON THAT. LAST YEAR ON THEA A-300, THAT WAS ONE OF THE FIRST LOOK MANEUVERS, NON-PRECISION APPROACH WITH A NOMINAL THREAT. ALL BUT TWO PERCENT PERFORM IT TO QUALIFICATION STANDARDS. WE ALSO IN 2014, WE ADDED AN ADDITIONAL NON-PRECISION APPROACH AND WE ARE UP TO 5, 5 OF THE 11 APPROACHES THAT A CREW MEMBER WOULD SEE OUR NON-PRECISION APPROACHES.

>> DO WE HAVE DATA ON THESE PARTICULAR CREW MEMBERS ON THEIR EXPERIENCE IN THE LAST YEAR OVER THEIR CAREERS WITH NOT PRECISION APPROACHES?

>> WE DO HAVE DATA RELATIVE NOT TO LINE OPERATIONS BUT CLEARLY DATA ASSOCIATED WITH OUR TRAINING PROGRAMS AS WE DO WITH ALL CREW MEMBERS. WE HAVE AN OPPORTUNITY AND RESPONSIBILITY, QUITE FRANKLY, THAT IF A CREW MEMBER EXCEEDS A CERTAIN NORM, THAT THEY RECEIVE ADDITIONAL TRAINING. ONCE THEY GOING TO BE A ADDITIONAL TRAINING MODE A ARE EITHER OR PERHAPS IT IS A MANDATORY SPECIAL TRACKING WHERE THEY GET ADDITIONAL TRAINING. INSTEAD OF COMING BACK EVERY 12 MONTHS THEY WOULD COME BACK AT SIX MONTH MARK AND THEY WOULD BE RETRAINED ON THOSE SPECIFIC ITEMS.

>> I GUESS THAT WAS KIND OF THE POINT I WAS TRYING TO UNDERSTAND, YOU HAVE THE TRAINING PART OF THIS BUT THIS IS A PRETTY INFREQUENT ACTUAL OPERATIONAL DEMAND FOR FOLKS THAT WE DON'T HAVE DATA BE ON YOUR TRAINING HOW MUCH EXPERIENCE THESE PEOPLE HAVE. IS THAT RIGHT?

>> NOT THE QUANTITY, IF YOU WELL, BUT I WASN'T JUST THE QUALITY, WE DO HAVE INFORMATION ON THAT. WE HAVE A NUMBER OF DIFFERENT DATA STREAMS COMING INTO US. WHAT ARE THE VOLUNTARY REPORTING PROGRAM FOR THE PILOTS. AND WE HAVE FOCLA DATA, IT IT ITSELF MEASURES AIRCRAFT PERFORMANCE. WE DON'T ACTUALLY HAVE A WAY OF CAPTURING WHETHER IT WAS PRECISION -- POSITION ON NON-PRECISION APPROACH BUT WHAT THE GATEKEEPER WILL DO IS LOOK TO SEE IF THERE WAS A SICK DANCE OF DEVIATION FROM THE QUALIFICATION STANDARD, AND IF THERE WAS -- SUBSTANTIAL DEVIATION FROM THE QUALIFICATION STANDARD AND IF THERE WAS, THEN THEY COULD RECOMMEND ADDITIONAL TRAINING. WE ALSO HAVE EVENT REPORTS. WE

HAVE RELATIONSHIPS WITH THE CHECK AIRMAN AND THE PILOTS IN GENERAL. WHILE WE CAN'T SAY WHAT IS THE PERCENTAGE, WE CAN QUANTIFY THE RISK OR LACK THEREOF ASSOCIATE IT WITH A NON-PRECISION APPROACH. IF I COULD --

>> IF YOU CAN DO IT QUICKLY, BECAUSE WE ARE WAY PAST TIME.

>> NON-PRECISION APPROACH IN AND OF ITSELF IS NOT A HIGH WAS -- HIGH-RISK MANEUVER. IF YOU COMPARE IT TO A PRECISION APPROACH, IT IS MORE CHALLENGING, SOME INTERFACES WITH TEAMWORK AND A COUPLE MORE STEPS WITH INTERFACING WITH AUTOMATION. BUT WE FLY INTO THUNDERSTORM ACTIVITY, AREAS OF THUNDERSTORM ACTIVITIES. WE DON'T FLY INTO THUNDERSTORMS BUT WE FLY INTO A SEA CONDITIONS, RUNWAYS WITH CONTAMINATION. WE TRAIN OUR CREWS TO MANAGE THESE ASPECTS OF AVIATION.

>> VICE-CHAIRMAN?

>> I THINK THIS QUESTION WAS ASKED BEFORE BUT NOT SPECIFICALLY TO CAPTAIN LAURENTZ . I WOULD LIKE TO ASK THIS QUESTION. WHAT HAPPENS IF I AM ABOVE MY AIRPLANE GENERATION GLIDE SLOPE AND WHAT IS THE TRAINING REGARDING HOW TO RESPOND IF I AM ABOVE THE AIRPLANE GENERATED FLIES SLOPE WHEN I AM INSIDE THE FINAL APPROACH FIX? WHAT IS THE TRAINING FOR THAT?

>> REALLY, THE ONLY WAY YOU COULD -- ASSUMING IT IS NOT A VISUAL APPROACH, ASSUMING IT IS SOME SORT OF EITHER POSITION OR NON-PRECISION OF WORK -- APPROACH, THE APPROPRIATE REMEDIATION WOULD BE TO CAN DISCONTINUE THE APPROACH. WHETHER A GO AROUND OR DISCONTINUE ITSELF AND GET YOURSELF BACK INTO POSITION OF THAT YOU ARE ABLE EYES. BECAUSE, QUITE FRANKLY, YOU WOULD BE IN A REGIME YOU HAVE NOT READ BRIEF WHICH WOULD BE AN UNMITIGATED RISK FACTOR BETWEEN TWO CREWMEMBERS FLYING. ONE PERSON MAY OR MAY NOT UNDERSTAND EXACTLY WHAT IS GOING ON SO THAT COULD BE A RISK FACTOR THAT NEEDS TO BE -- MITIGATED.

>> DO YOU HAVE ANY KNOWLEDGE FROM THE VARIOUS REPORTING PROGRAMS, DO YOU HAVE ANY KNOWLEDGE OF HOW FREQUENTLY THAT OCCURS THAT PEOPLE GET ABOVE THE AIRPLANE GENERATING GLIDE SLOPE AND THEN HAVE TO TRY TO RESPOND TO IT IN SOME WAY? DO YOU HAVE ANY SCENARIOS THAT HAVE COME THROUGH YOUR REPORTING SYSTEMS IN THAT REGARD?

>> IF THERE ARE ANY EVENTS SHUT -- SUCH AS THAT THE PERCENTAGE WOULD BE EXCEPTIONALLY LOW. THERE ARE OTHER THINGS HIGHER ON THE RADAR SCREEN IN TERMS OF ACTIVITY THAT WOULD GENERATE REMEDIATION, WHETHER IT IS PROGRAM WIDE OR INDIVIDUAL CREWMEMBER WIDE.

>> OK, AND LET ME ASK ABOUT THE CALLOUT, TRAINING REGARDING CALLOUT. IMC, MOST ARE MINIMUM DISSENT HEIGHT OR DECISION, MINIMUM DISSENT ALTITUDE ORDERED DECISION HEIGHT. WHAT ABOUT ALTITUDE ABOVE AIRPORT ELEVATION VERSUS ALTITUDE ABOVE FOR SIEGE OR GENERATED ALTITUDE?

>> I THINK I UNDERSTAND THE QUESTION, THE 1000 FOOT CALL AND THE 500 FOOT CALL WOULD BE IN RELATION TO THE AIRPORTS. ESSENTIALLY ABOVE TOUCHDOWN ELEVATION.

>> WHAT IS THE TRAINING ABOVE MD A WARD DECISION HEIGHT?

>> CREW MEMBERS ARE TRAINED TO CALL IT OUT RELATION TO RADIO ULTIMATE OR IF PRECISION APPROACH OR BAROMETRIC ALTIMETER IF IT IS NON-PRECISION APPROACH.

>> MY FINAL QUESTION IS KIND OF FOR THE WHOLE PANEL. I COMMEND THE ENTIRE COMMERCIAL AVIATION INDUSTRY FOR TAKING GREAT STEPS TO MAKE SURE THAT EVERY AIRPORT THAT HAS AIRLINERS GOING INTO IT, BEER -- BIG AIRLINES -- AIRPLANE COMING INTO IT, HAVE PRECISION APPROACH THAT CAN BE USED. UNINTENDED CONSEQUENCES MAKING PEOPLE MORE RUSTY AT NON-PRECISION APPROACHES THAT WE RUN INTO THE PROBLEM. I WOULD ASK ANY OF THE PANELISTS TO COMMENT ON THAT. YES, PLEASE. CAPTAIN MILLER?

>> I THINK THAT IS THE EVOLUTION. THAT IS WHAT OCCURRED. THE THINGS THAT ARE DESIGNED TO HELP WITH DOWN THE ROAD CAN SOMETIMES HURT US BECAUSE WE BECOME COMPLACENT. I THINK IT IS A NATIONAL EVOLUTION WHAT WE ARE TALKING ABOUT. MORE AND MORE WE FIND PLACES WHERE WE CAN DO IOS AND CAN FLY FULLY AUTOMATED BUT 25 YEARS AGO WE WERE NOT DOING THAT. WE WERE ACTUALLY ONLY WANT TO THE AIRPLANE. YES, I AGREE WITH WHAT YOU'RE SAYING THAT THOSE ARE THE UNINTENDED CONSEQUENCES.

>> ANY OTHER THOUGHTS FROM THE PANELISTS?

>> I SUPPOSE I HAVE A SLIGHTLY DIFFERENT PERSPECTIVE. WHILE I AGREE WITH CAPTAIN MIDDLETON, AS A RESULT OF AUTOMATION, NON-PRECISION APPROACHES ACTUALLY HAVE BECOME SAFER THAN THEY WERE 10 OR 15 OR 20 YEARS AGO. BECAUSE OF AUTOMATION WE CAN NOW ESSENTIALLY CREATE OUR OWN NEAR PRECISION APPROACH USING THE PROFILE MODE AS AN EXAMPLE. ON THE AIRCRAFT I'VE FLY, MD-11, EVEN VERTICAL SPEED IT IS NEAR PRECISION APPROACH. WHILE IT IS A MANEUVER THAT IS NOT NORMALLY CALLED FOR, AUTOMATION DOES HELP A SIGNIFICANTLY RELATIVE TO 10 OR 15 YEARS AGO. AND OUR DATA STREAMS DON'T INDICATED IS A SIGNIFICANT PROBLEM AND OUR TRAINING DATA WOULD SUGGEST THAT AS WELL.

>> WHAT IS THE TRAINING REGARDING USING AUTOMATED APPROACHES, EITHER PRECISION OR NON-PRECISION? ARE YOU ASSUME IT HAPPENS WHEN YOU ARE IMC BUT WHAT IF YOU AREN'TVMC?

>> NORMAL PROTOCOL AS WE WOULD SHOOT UNCLEAR FOR -- VMC, I WILL PARAPHRASE AS A VISUAL APPROACH BUT WE ALWAYS BACK IT UP AND THERE IS AN INSTRUMENT APPROACH AVAILABLE. THE PREFERRED METHOD WOULD BE BACK UP I WITHLS, A POSITION APPROACH BUT IF THERE IS NOT ONE WE WILL BACK A PRECISION APPROACH WOULD NOT POSITION -- VISUAL APPROACH WITH NON-POSITION APPROACH.

>> MR. BAUER PROVIDED AN OPENING STATEMENT AND THERE WERE A COUPLE OF PIECES OF INFORMATION IN THE OPENING STATEMENT. ONE OF THEM IS THERE WERE NO ANOMALIES IDENTIFIED WITH THE AIRCRAFT OF THE SYSTEMS. THAT INCLUDES ENHANCED GROUND PROXIMITY WARNING SYSTEM. ANOTHER PIECE OF INFORMATION THAT HE PROVIDED HAD TO DO WITH INFORMATION THAT WAS RECOVERED FROM THE RECORDERS. AND IT TALKS ABOUT A FIRST IMPACT PRIOR TO THE ALERT, THE TERRAIN

ALERT. CAN YOU HELP ME TO UNDERSTAND AND RECONCILE THOSE STATEMENTS? WHAT IS EXPECTED WITH RESPECT AND WHAT IS TRAINED FOR PILOTS WITH RESPECT TO ALERTS? DOES THAT CHANGE WHEN THEY ARE IN DIFFERENT PHASES OF FLIGHT? FOR EXAMPLE, IF THEY ARE IN A LANDING CONFIGURATION. AND WHAT DO PILOTS KNOW AND EXPECT WITH REGARD TO WHAT ALERTS THEY MIGHT GET AND WHAT TIME THEY MIGHT IT REACT TO THEM? IF SOMEBODY FELT LIKE THEY COULD ANSWER THE QUESTION, THEY COULD JUMP IN. CAPTAIN MIDDLETON, DO YOU WANT TO TAKE IT?

>> I CAN ONLY TELL YOU, AS PILOTS, WE ARE VERY MECHANICAL AND THAT IF I SHOWED YOU ALL THE MANUALS I WAS RESPONSIBLE FOR TODAY FOR WHEN I GO OUT AND FLY, IT WOULD SCARE YOU. THERE IS A LOT TO UNDERSTAND. AND EVERYTHING WE DO IS PROCEDURALIZED. EVERY CALL WE MAKE, EVERY BUTTON WE PUSH. WE HAVE TO BE THAT WAY BECAUSE WE DON'T ALWAYS FLY WITH THE SAME PEOPLE AND WE DON'T ALWAYS FLY INTO THE SAME PLACES. WHEN HE ASKED ME WHAT THE RESPONSES, I CAN ONLY TELL YOU THE AIRCRAFT OPERATOR MANUAL IS A BOOK I AM SUPPOSED TO KNOW SO WELL THAT IF SOMEBODY SHINED A FLASHLIGHT IN MY FACE AT 4:00 IN THE MORNING WHEN I WAS ASLEEP AND KICKED ME AND SAYING WHAT DO I DO WITH THIS GOES OFF -- I WOULD DISCONNECT AUTOPILOT, DISCONNECT -- 20 DEGREES, FRAUD ALOFT IT JUST LIKE THAT. AOM TELLS ME IF IS A SINK RATE -- I HAVE TO MAKE ITS THAT WOULD IT IS DOING BUT IF IT SAYS 20 TERRAIN, I WOULD GO AROUND AND WHEN IT SAYS TERRAIN, TERRAIN, PULL UP, I WILL DO THE ESCAPE MANEUVER. AT IS ALL I HAVE AS A PILOT AT 4:00 A.M. THE MORNING WHEN I AM TIRED. I AM PROCEDURALIZED AND AS PILOTS WE DO WHAT IS WRITTEN. I DO COMPLETELY AGREE THAT THERE IS A PART OF IT THAT YOU HAVE TO KNOW YOUR ENVIRONMENT. AND WE CERTAINLY HAVE THE LATITUDE TO THINK AS WELL SO THAT MAYBE TRY TO THINK AHEAD OF THE COMPUTER.

>> CAPTAIN MIDDLETON, WHAT I AM TRYING TO GET IT IS THE EXPECTATION FOR THE DIFFERENT ALERTS HIM AND IF PILOTS ARE AWARE -- ALERTS, AND IF PILOTS ARE AWARE WHEN THEY GET THOSE, IT'S TIME THEY HAD TO RESPOND. OBVIOUSLY YOU ARE GETTING TRAINED WITH THAT EXPECTATION THAT YOU CAN RESPOND. I WANT TO UNDERSTAND THAT THE KNOWLEDGE AND EXPECTATION IS OF WHEN THEY WOULD GET THE ALERT. IN THIS SITUATION, WE HAD FIRST IMPACT BEFORE THE ALERT. IS THAT WHAT YOU WOULD EXPECT AS A PILOT?

>> NO.

>> SO, HOW MUCH, WHEN YOU WERE GOING TO YOUR TRAINING -- SO, FOR EXAMPLE, INDIFFERENTLY -- PHASES OF FLIGHT, HOW MUCH WARNING WOULD YOU EXPECT TO RECEIVE?

>> FROM THE ENHANCED GROUND PROXIMITY WARNING SYSTEM, IS THAT WERE TO BECOME ACTIVE, IT COULD GIVE YOU AS MUCH AS 30 OR 40 SECONDS NOTICE, ALSO WITHIN ITS PERIMETER.

>> MAYBE I CAN GO TO AIRBUS AND YOU CAN HELP ME ANSWER THIS QUESTION. PLEASE BLAME WHAT YOU -- EXPLAIN WHAT YOU ALL UNDERSTAND THAT THERE WERE NO ANOMALIES WITH THE SYSTEM DID EXPLAIN HOW IT IS DESIGNED TO WORK AND HOW IT PERFORMED.

>> I MUST ADMIT, I AM A TRAINING CAPTAIN AND MY KNOWLEDGE OF THE SYSTEM

DESIGN IS VERY LIMITED IN THAT CASE. SO, I CAN GIVE A VERY GENERIC ANSWER THAT EACH OF THESE WARNINGS HAS A PREDEFINED ENVELOPE AND HAS A PREDEFINED THRESHOLD OF DELIVERING THE WARNING. AND THAT THRESHOLD DEPENDS ON THE PHASE OF THE FLIGHT AND THE THRESHOLD ALSO DEFINES THE REMAINING TIME FOR REACTION.

>> SO, WHEN YOU TRAIN PEOPLE, DO THE PILOT UNDERSTAND THAT THERE ARE GOING TO BE DIFFERENT RESPONSE TIMES AVAILABLE TO THEM DEPENDING ON DIFFERENT PHASES OF FLIGHT OR THAT CERTAIN SYSTEMS WOULD BE INHIBITED OR DIFFERENT IN CERTAIN PHASES OF FLIGHT?

>> THIS IS PART OF THE TECHNICAL TRAINING WHERE THE SYSTEM PARAMETERS IN THE SYSTEM DEFINITIONS ARE EXPLAINED. IN THE PRACTICAL TRAINING WE DO AT AIRBUS, WE TRAIN THE MOST CRITICAL CONDITIONS AND THE MOST CRITICAL ALERTS IN TERMS OF HANDLING THE AIRCRAFT AS A RESPONSE TO THAT ALERT.

>> WHAT WOULD YOU SAY THE MOST CRITICAL CONDITIONS AND THE MOST CRITICAL ALERTS ARE ON AN APPROACH TO LAND IN IMC CONDITIONS, NON-PRECISION APPROACH?

>> UNDER THESE CIRCUMSTANCES, DURING NIGHT COMING IN IMC, ANYTHING HAPPENING CLOSE TO THE GROUND IS TO BE CONSIDERED AS CRITICAL.

>> MEMBER SOMEWHAT -- SUMWALT?

>> THANK YOU. CAPTAIN LAURENTZ, I MOMENT AGO YOU SAID NOT POSITION APPROACH IS NOT NECESSARILY A HIGH-RISK MANEUVER. ARE YOU THE MONEY WITH FLIGHT SAFETY FOUNDATION DATA THAT SHOWED THE ACCIDENT RISK IS FIVE TIMES GREATER FOR COMMERCIAL AIRCRAFT FLYING NON-PRECISION APPROACH COMPARED TO THOSE FLYING PRECISION APPROACH?

>> I AM, AND WHEN I WAS RESPONDING IT WAS IN RELATION TO OTHER RISK FACTORS WE IDENTIFIED. WHETHER IT IS THROUGH ASAP OR OUR TRAINING PROGRAM.

>> THANK YOU. I WOULD LIKE TO NOW CALL UP EXHIBIT 2 ZULU, AND I WILL LIKE TO JUST SCROLL THROUGH THAT, BEGINNING WITH THE TITLE OF IT. AND CAPTAIN LAURENTZ, THIS WILL BE FOR YOU AS WELL. WHAT THIS IS IS HOW THE FLIGHT OPERATIONS MANUAL FOR UPS AND A TALKED ABOUT STABILIZED APPROACH CRITERIA. LETS SCROLL TO THE VERY NEXT PAGE, AND UP TOP HERE AND ON THE MIDDLE PART. SO, LET ME ASK YOU THIS -- WHAT TYPE OF APPROACH WOULD YOU CONSIDER THESE PILOTS TO HAVE BEEN FLYING ON APPROACH INTO BIRMINGHAM? IT WOULD BE CALLED WHAT? LOCALIZED APPROACH?

>> YES, A LOCALIZER APPROACH IN VERTICAL SPEED MODE.

>> IF WE GO TO THE MIDDLE SECTION -- AND THIS IS DEFINING STABILIZED APPROACH CRITERIA. SO, IT SAYS HERE IF YOU ARE ON AN -- APPROACH A LOCALIZER GLAD GLOW BEST GLIDE SLOPE FULL-SCALE DEFLECTION, GPS APPROACH -- AWARE IN THIS SECTION -- WHERE IN THIS SECTION WITH THIS TELL YOU IF YOU GOT A VERTICAL GUIDANCE ON THE COMPUTER-GENERATED DATA, IF YOU GOT A FULL-SCALE DEFLECTION ON THAT, WHERE WOULD YOU FIND SOMETHING LIKE THAT TO INDICATE THAT WOULD BE AN IMMEDIATE GROUNDS FOR A GO-AROUND?

>> I AM NOT INTIMATELY FAMILIAR WITH THE A-300, I AM ON THE MD-11. SO I DON'T KNOW IF THEY HAVE SPECIFIC GUIDANCE. I KNOW THEY HAVE WHAT THEY REFER TO AS A FOOTBALL. THE VERTICAL GUIDANCE, THOUGH, CERTAINLY, WHICH IS CONSISTENT WITH ALL AIRCRAFT THAT UPS, YOU WOULD HAVE A VERTICAL SPEED INDICATOR, AND THAT WOULD INDICATE IN THIS PARTICULAR CASE WHETHER THEY WERE STABILIZED AND REFERENCE TO THE RATE OF DESCENT .

>> I AM NOT TALKING ABOUT THE VERTICAL SPEED. WE KNOW AS PILOTS IF YOU ARE ON THE FINAL APPROACH FIX AND YOU GET A FULL-SCALE REFLECTION OF A LOCALIZER OR GLIDE SLOPE, YOU WILL GO AROUND. YOU WILL EXECUTE A MISSED APPROACH OR SOMETHING THEREABOUTS. WHAT I'M LOOKING FOR IS WHERE IS THE SPECIFIC GUIDANCE IN THE UPS DOCUMENTATION THAT SHOWS IF YOU HAVE A FULL-SCALE DEFLECTION OF THIS FOOTBALL, IF THAT IS WHAT WE ARE CALLING IT -- I WILL BUY THAT TERM, HAVING FLOWN AIRBUS BEFORE -- WHERE WOULD IT SAY IF YOU HAVE. THE ELBOW FLEXION OF THE FOOTBALL, JUST LIKE FULL-SCALE FLEXION OF GLIDE SLOPE, THEY WILL GO AROUND. I KNOW YOU ARE NOT FAMILIAR WITH THE AIRBUS BUT THIS IS GENERIC UPS GUIDANCE. THIS IS THEIR FOM, NOT SPECIFIC TO THE AIRBUS. THE HAVE GUIDANCE FOR THAT GENERICALLY SPEAKING?

>> I UNDERSTAND THE QUESTION NOW. I AM NOT AWARE OF THE SPECIFIC GUIDANCE LOOK INTO THAT, WHETHER A-300 OR MD-11. THAT WILL BE SOMETHING HAVE TO GO BACK AND RESEARCH.

>> CAPTAIN MIDDLETON, CAN YOU ANSWER THAT QUESTION?

>> IN THE BRIEFING GUIDE FROM THE PROFILE APPROACHES IT DOES TELL YOU WHAT THE PARAMETERS ARE FOR NON-PRECISION APPROACHES, VARIOUS ONES.

>> IN THE BRIEFING GUIDE, THAT IS WHAT WE REFERRED TO EARLIER, THE MATRIX?

>> IT IS AT THE END OF THE BRIEFING GUIDE.

>> OK, THANK YOU. CAPTAIN MIDDLETON, HOW DO YOU TRAIN FOR, SAY, THE SEE FIT ESCAPE MANEUVER. BACK YEARS AGO WHEN I WAS FLYING, WHEN WE WANTED TO DEMONSTRATE THE SEE FIT ESCAPE MANEUVER IT WILL BE THE TYPICAL SITUATION WHERE WE WERE GOING TO POINT THE AIRPLANE AT MOUNT RENIER AND WE WILL BE AT THE TOP, 14,000 FEET, WE WOULD BE AT 13,000 FEET AND WE WILL DRIVE TOWARD THE THING OF SIMULATOR A WE WILL GET THAT COST ALERT ABOUT 60 SECONDS OUT AND IF WE KEEP DRIVING ABOUT 30 SECONDS OUT AND THAT WE WILL GET THE WARNING AND THEN WE CAN ACTUALLY EXECUTE THE SEE FIT ESCAPE MANEUVER. AT UPS DO YOU TRAIN FOR THE SCENARIO YOU ARE TALKING ABOUT HERE WHERE WE ARE ON AN APPROACH AND WE ACTUALLY GET AN EGPWS CALL, NOT GPWS CALL SAYING TOO LOW TO RAIN. YOU SPECIFICALLY TRAIN THAT ON THE APPROACH?

>> TO MY KNOWLEDGE, NO, WE HAVE NOT DONE THAT.

>> CAPTAIN LAURENTZ, D HAVE ANY KNOWLEDGE OF THAT?

>> WE DON'T. FOR A COUPLE OF REASONS. FOR ONE, IT DOES NOT EXIST WITHIN THE

CAPABILITIES OF THE SIMULATOR, AND, TWO, FOR US TO NAVIGATE AROUND THAT LIMITATION WE WOULD HAVE TO DRIVE THE CREWS ARTIFICIALLY LOW, FOR EXAMPLE.

>> THANK YOU VERY MUCH.

>> IF I MAY -- WHEN CAPTAIN MILLS ESTIMATE QUESTION ABOUT SEE FIRT AND THINK RIGHT AT PROBABLY COULD'VE PULLED A BETTER REFERENCE THERE ARE PROBABLY MORE APPROPRIATE REFERENCE WOULD BE --UNDER SEE FIT, IT IS CONSISTENT WITH THE FOM LANGUAGE, BUT02010202, RECOVERY EVERY MANEUVER. THE FOLLOWING SPEED IMMEDIATELY PERFORMED WHEN THREAT OF IMMEDIATE CONTACT WITH TERRAIN OR OBSTACLE EXISTS AND IT GOES INTO THE MANEUVER ITSELF. ONE THING THAT IS IMPORTANT IS THE DISTINCTION BETWEEN EGPWS CALLOUT, WEATHER ALERT OR WARNING ANDSEE FIT RECOVERY ROOM MANEUVER. WHILE ONE MAY GENERATE THE OTHER IT IS NOT THE ONLY EXCLUSIVE WAY WE MIGHT EXECUTE A SEE FIT MANEUVER.

>> THANK YOU.

>> MEMBER WEENER?

>> QUESTION FOR CAPTAIN MIDDLETON. WHAT WERE THE CALLOUTS EXPECTED TO BE ON THIS APPROACH? VERTICAL SPEED APPROACH, LOCALIZER?

>> THEY WERE PLANNING TO BE A PROFILE APPROACH, LOCALIZER. AND THE FIRST STANDARD CALL THAT YOU WOULD HAVE HEARD FROM THEM, THE PILOT MONITORING WOULD HAVE, AS THE CROSSED THE POINT, IT WAS A THOUSAND FEET UP ABOVE THE FIELD, WOULD HAVE SAID 1000 FEET AND I IS AN INSTRUMENT CROSS CHECKS NO FLAGS, MEANING ANYTHING OK. THE PILOT FLYING'S BE SPONSORED THAT WOULD HAVE BEEN TO VERBALIZE MINIMUMS, WHICH IN THIS CASE, WERE 1200 FEET. IF HE WOULD HAVE SAID PRECISION ALTITUDE 1200 FEET, THERE WOULD HAVE BEEN QUITE AT THAT POINT UNTIL THE NEXT POINT THEY CROSSED, WHICH WAS 500 FEET ACROSS THE FIELD. OF THE PILOT MONITORING WOULD HAVE SAID -- AND AGAIN, DEPENDING UPON WHAT THEY SAW, BUT UNDER NORMAL CONDITIONS THEY WOULD SAY 500 FEET I'M ON SPEED, MEANING THEY ARE REFERENCING APPROACHES SPEED AND WHATEVER THINK WEIGHT -- SINK RATE, ANYWHERE FROM 700-900 FEET PER MINUTE DOWN, THERE WOULD HAVE BEEN SILENT AGAIN. AT AN ALTITUDE 100 FEET ABOVE THE PRECISION ALTITUDE WHICH WOULD HAVE BEEN REFERENCED FROM THE BAROMETRIC ALTIMETER, AT 1300 FEET ON THE BAROMETRIC ALTIMETER, THE PILOT MONITORING WOULD HAVE SAID APPROACHING MINIMUMS, AND THEN ONE HUNDRED FEET LATER, AS THE ALTIMETER WOUND DOWN TO THE NEXT 100 FOOT MARK AT 1200, THE PILOT MONITORING WOULD HAVE SAID, MINIMUMS. THE PILOT FLYING'S BE SPONSORED THAT IS VERY LIMITED IN THIS OPERATION, THIS TYPE OF APPROACH. -- RESPONSE TO THAT WOULD BE VERY LIMITED. MEANING HE SAW SOMETHING, SAYING CONTINUING, LANDING, OR IF HE DID NOT SEE ANYTHING, GO AROUND -- FLAPS, THE STANDARD CALL ON THE AIRBUS.

>> SO, IN THIS CASE, THERE WAS NOT A MINIMUMS CALL.

>> TO MY UNDERSTANDING, NO, SIR.

>> HAD THERE BEEN A MINIMUMS CALL, THE FIELD WAS NOT OF BEEN INCISIVE AGO AROUND DECISION WOULD HAVE BEEN MADE.

>> AT MINIMUMS, IS THAT WHAT YOU SAID?

>> YES.

>> THAT IS CORRECT. IF DONE BY THE BOOK, IF AT 1200 FEET ON THE BAROMETRIC ALTIMETER , IF NOTHING WAS SEEN WHEN THE MONITORING SET MINIMUMS, IF NOTHING WAS SEEN THE STANDARD CALL WOULD'VE BEEN GO AROUND PLUS FLAPS.

>> IS THERE ANY AUTOMATED CALL FOR MINIMUMS OUT OF THE FMC?

>> NO, SIR.

>> FOR AIRBUS, IS THAT AN OPTION, AUTOMATED CALLOUT?

>> NOT ON THIS GENERATION OF AIRCRAFT.

>> NOT ON THIS GENERATION. OK. WE SPENT A LOT OF TIME TALKING ABOUT STABILIZED APPROACH PRINT -- CRITERIA AND THE POLICIES FOR THAT. OF COURSE, THE CRITERIA FOR US TO DECISION. WHO CAN CALL FOR A GO AROUND?

>> ANYBODY. EITHER CREW MEMBER.

>> EITHER CREW MEMBER.

>> YES, SIR.

>> WHAT YOU WILL CALL AND NO-FAULT GO AROUND POLICY?

>> ABSOLUTELY, IT IS WRITTEN THAT WAY.

>> THANK YOU. NO MORE QUESTIONS.

>> MEMBER ROSEKIND?

>> CAPTAIN MIDDLETON OR CAPTAIN LAURENTZ, BOTH OF YOU POLICY -- POSSIBLY. IS THERE AN OPERATIONAL A TRAINING PROCESS TO BENCHMARK OR IMPAIRED YOUR NON-PRECISION APPROACH PROCEDURES TO OTHERS? WHAT AIRBUS WOULD SUGGEST THE OTHER CARRIERS ARE DOING? A PROCESS JUST TO GET A SENSE OF WHERE YOU ARE?

>>

>> THERE IS A COUPLE OF WAYS IN WHICH WE BRIDGE THAT. ONE WOULD HE, AS WE SUBMIT OUR DATA INTO THE FAA, I BELIEVE THEY ASSESS OUR RESULTS. THEY NORMALIZE IT, TO MY UNDERSTANDING, SO THEY HAVE THE OPPORTUNITY TO ASSESS OUR DATA RELATIVE TO THE DATA GLEANED FROM OTHER CARRIERS. WE ALSO ARE VERY CONNECT IT -- CONNECTED, WHILE NOT A FORMAL PROCESS, VERY CONNECTED TO OUR COUNTERPARTS AND VARIOUS AIRLINES AND WE TALK ROUTINELY, WHETHER IT IS ABOUT HOW THEY MAY DO A PARTICULAR MANEUVER OR ACCOMPLISH A PARTICULAR TASK, BEST PRACTICES, THAT TYPE OF THING. ONE OF THE THINGS WE DID YOU KNOW MEMBER, I

DISPATCHED A TEAM TO LOOK AT A COUPLE OF DIFFERENT THINGS RELATIVE TO HOW UPS DOES THIS COMPARE TO OUR COUNTERPARTS IN THE INDUSTRY, AND ONE WAS ON PILOT MONITORING, THE OTHER ON A FIRST OFFICER ENGAGEMENT, AND THE OTHER ON AUTOMATION POLICY. AND THAT IS NOT AS A RESULT OF ANY DIRECT CONCERNS, BUT THAT IS JUST AN EXAMPLE OF HOW WE ROUTINELY BENCHMARK OURSELVES ON CRITICAL ASPECTS OF OUR OPERATIONS.

>> LET'S JUST WRAP THIS UP FOR MY QUESTION, MR. STEINBICKER, ANYTHING ON THE FAA SIDE ON HOW IT IS EVALUATED QUESTION MARK

>> I APOLOGIES THAT -- THAT IS A LITTLE OUT OF MY COOKIES THAT I CAN EITHER PROVIDE A RESPONSE AFTER HER MY COLLEAGUE ON A FOLLOWING PANEL.

>> IF YOU JUST WANT TO SUBMIT SOMETHING ON THE RECORD AFTERWARD THAT WOULD BE GREAT.

>> VICE-CHAIRMAN?

>> GOING BACK TO THE CALLOUT PROCESS, TO -- TO WHAT EXTENT DOES THE PROCESS DIFFER FROM IMC VERSUS VMC, OF BOTH CAPTAIN LAURENTZ AND CAPTAIN MIDDLETON. MORE SPECIFICALLY, WHAT CALLOUTS WHAT I ANTICIPATE IN A VISUAL APPROACH?

>> AS LONG AS INITIAL APPROACH, THE CALLOUTS WOULD BE IDENTICAL. AND IN FACT, EVEN IF YOU WEREN'T VMC AND DOING A VISUAL APPROACH, IF YOU BRIEFED -- WERE VMC AND DOING A VISUAL APPROACH, EVEN IF YOU WERE GOING TO BACK THAT UP WITH -- THE CALLOUTS WOULD BE MADE.

>> THAT IS HELPFUL. I WOULD LIKE TO GET SOME IDEA OF THE PERCENTAGE OF TIME THESE APPROACHES ARE CONDUCT DID, VMC VERSUS PERCENTAGE OF TIME IMC. I WOULD -- WANT TO GET A SENSE OF HOW FREQUENTLY THE CALLOUT PROCESS HAS TO ACTING.

>> THE CALLOUT PROCESS HAPPENS ESSENTIALLY ON EVERY FLIGHT.

>> OK, CAP HIM -- CAPTAIN MIDDLETON, ANY THOUGHTS ON THAT?

>> I AGREE. WE ALWAYS SET UP -- AS WE ALWAYS SAY, SET UP FOR THE WORSE CONDITIONS AND HOPE FOR THE BEST AND IF IT IS VFR WE WOULD FLY AS IF IT WERE IMC AND MAKE THE SAME PROCEDURES.

>> OK, THANK YOU.

>> CAPTAIN MIDDLETON, YOU MENTIONED THERE WERE THREE THINGS THAT ARE NECESSARY TO OBTAIN THE RAW FILE APPROACH. DID THEY ACTUALLY GET THE PROFILE WHERE THEY WERE ABLE TO TAKE ADVANTAGE OF THAT?

>> THE ONE STEP THAT WASN'T DONE WITH CYCLING THE APPROACH CORRECTLY, FROM WHAT WE SAW. THEY DID LOAD THE APPROACH. THEY DID ENTER THE CORRECT MINIMUMS AND ACTIVATE THE APPROACH AND EVEN PRESSED PROFILE BUT WHAT THEY DID IN WAS ESSENTIALLY CLEAN THINGS UP HIM AND WILL CALL IT, BASICALLY SO THE ONLY THING IN THE FMC IS THE APPROACH ITSELF. AND WITHOUT THAT ONCE THAT IT

WOULDN'T HAVE WORKED.

>> SO THEY WERE NEVER GOING TO REALLY ACTIVATE OR INTERCEPT THE PROFILE?

>> THAT IS CORRECT. IT COULD WORK.

>> OH -- IT COULD NOT WORK.

>> SO AND ERROR OF OMISSION OR COMMISSION, GOING TO A SEQUENCING OF THINGS AND THEY ARE NOT GOING TO ACHIEVE IT. DO WE HAVE ON THE CCVR, ANY ACKNOWLEDGMENT THEY DON'T ACHIEVE THE POPE -- PROFILE, THAT THEY AREN'T GETTING IT?

>> FROM WHAT I HAVE SEEN AND READ, THERE WAS AN ACKNOWLEDGMENT TO THE FACT THAT THE AIRCRAFT WAS NOT DOING WHAT THEY HAD EXPECTED IT TO DO, AND THEY ACTUALLY DID MAKE MENTION THAT THE PROFILE DIDN'T ENGAGE. YES.

>> SO, THE PROFILE DIDN'T ENGAGE. MEMBER WEENER AND VICE-CHAIRMAN ASKED CAPTAIN LAURENTZ A QUESTION ABOUT UPS, AS THEY ARE NOT ON THE PROFILE, AS THEY ARE ABOVE OR IF THEY ARE NOT ON IT, AND YOU MENTIONED THEY SHOULD EXECUTE A GO AROUND, IS THAT CORRECT?

>> THAT IS CORRECT, BECAUSE THEY WOULD BE EXECUTING AN APPROACH THAT THEY HAD NOT SET UP FOR.

>> IS IT A UPS RECEIVED YOUR TO EXECUTE -- PROCEDURE TO EXECUTE A GROW ACT -- GO AROUND IF THEY ARE NOT ON PROFILE?

>> IT WOULD BE. IF I COULD QUALIFY FOR A MOMENT. IT IS NOT ALL THAT UNUSUAL, FOR EXAMPLE, FOR US OR ANY AIRLINE TO GET A RUNWAY CHANGE, FOR EXAMPLE, OR PERHAPS TO THE INTENDED APPROACH IS NO LONGER AVAILABLE. MAYBE SOMETHING BECAME INOPERATIVE. IT IS NOT UNUSUAL. WHAT WE DO AND THOUGH THE CASES IS SET UP THE NEW APPROACH, SET UP THE NEW RUNWAY, WHATEVER THE CASE, AND WE BRIEFED THOSE DIFFERENCES. IT WOULD NOT BE ACCEPTABLE TO INITIATE ONE APPROACH AND THEN TO ESSENTIALLY DEVELOP A DIFFERENT PLAN ONCE THE APPROACHES HAVE ALREADY BEEN INITIATED.

>> I JUST WANT TO BE CLEAR, YOU ARE SAYING THERE IS A UPS PROCEDURE FOR THEM TO EXECUTE A GO AROUND IF THEY DON'T ACHIEVE THE PROFILE?

>> IT TIES BACK TO -- IT IS NOT AS EXPLICIT AS THAT, BUT WHAT IT DOES IS IT TIES BACK TO THE BRIEFING, AND WE HAVE A REQUIREMENT TO DO THE BRIEF. B, ONE OF THE ELEMENTS WE ARE REQUIRED TO BRIEF IS WHAT KIND OF APPROACH WE ARE GOING TO SHOOT AND WHAT MODE WE ARE GOING TO SHOOT IT RELATIVE TO AUTOMATION. SO, TO COMPLY WITH THAT, YOU WOULD HAVE TO --

>> IT IS NOT A SPECIFIC CALLOUT THEY ARE TRAINED TO?

>> I THINK THE ANSWER WOULD BE NO BASED ON WHAT I UNDERSTAND THE QUESTION TO BE.

>> COULD YOU PLEASE PULL UP EXHIBIT 2X, PAGE 11? I AM GOING TO FOLLOW UP ON SOME QUESTIONS ASKED BY -- ABOUT DIFFERENT REQUIRED CALL OUT. LOOKING AT THE COCKPIT VOICE RECORDER WITH RESPECT TO SPECIFIC TIMES AND ALSO SOME OF THE OTHER DATA THAT WE HAVE, RECOGNIZES SOMETIMES ON THE CVR, THE CALLOUTS ARE COMING IN LITTLE LATE BECAUSE THEY ARE READY PASS THROUGH CERTAIN ALTITUDES. WHEN WE LOOK AT THIS CHART AND WE GET TO 1000 FEET ABOVE TOUCHDOWN CALLOUT, THERE ARE A COUPLE OF OTHER CALLOUTS AND MEMBER WEENER WENT THROUGH SOME OF THESE THAT NEEDED TO HAPPEN IN. CAPTAIN MIDDLETON, YOU WENT THROUGH THE VENUE SAID THEY CALLED EACH OF THESE OUT. THERE WOULD BE SILENCE. AND THEN THERE WOULD BE ANOTHER CALLOUT. AND THERE WOULD BE SOME SILENCE AND ANOTHER CALLOUT. WHICH OF THESE CALLOUTS WERE MISSED ON THE APPROACH?

>> FROM WHAT I HAVE READ, THE 500 FOOT CALLED ABOVE TOUCHDOWN DID NOT OCCUR. THE 100 FEET ABOVE THE MDA DID NOT OCCUR AND THE CALL AT MINIMUMS DID NOT OCCUR.

>> AND I AM LOOKING AT THE CVR, WHEN THEY ARE AT 1000 FEET, THE TIME -- TO MAKE THE CALLOUT FOR 1000 FEET IS 44702.9. 1000 FEET, CROSS INSTRUMENTS, CROSS CHECK NOTES, BUT NO FLAGS. WE HEAR SOUNDS OF FIRST IMPACT LESS THAN 30 SECONDS LATER. AND IN BETWEEN THOSE, WE HAVE A 12 UNDER CALLOUT, BUT THERE'S NOT A LOT OF TIME FOR ALL OF THESE OTHER CALLOUTS AND RESPONSES AND DECISIONS. AND SO, MY QUESTION IS, IS 1000 FEET, GIVEN HOW BUSY THE COCKPIT ENVIRONMENT IS, ENOUGH TIME TO EXECUTE ALL OF THE REQUIRED STEPS IN A IMC NONDECISION APPROACH ENVIRONMENT. WHEN YOU ALL THE TRAINING AND YOU PRACTICE THIS, CAN THEY HIT THEM ALL THE TIME?

>> YES, PROPERLY CONFIGURED WHERE THE AIRCRAFT NEEDS TO BE. WHILE IT SEEMS AS IF THEY ARE COMING RIGHT AFTER EACH OTHER, THERE IS ACTUALLY SILENCE BETWEEN EACH ONE OF THEM.

>> PROPERLY CONFIGURED, THOUGH, IS KIND OF THE KEY POINT. WHAT IS PROPERLY CONFIGURED AT 1000 FEET?

>>WE WENT THROUGH THE SIX STEPS. LANDING CONFIGURATION, AIRSPEED, NO MORE THAN A THOUSAND FEET PER MINUTE, AIRCRAFT IN STABLE CONDITION, VERTICAL, LATERAL, OFF THE CENTER LINE AND THREAT SETTING. THEY'VE GOT TO BE DOING ALL OF THESE THINGS SIMULTANEOUSLY, VERIFYING ALL OF THESE THINGS. WHAT IF THEY'RE NOT? WHAT IF THEY ARE NOT HITTING ONE OF THESE TARGETS?

>> IT WILL, AND THE CASE OF THIS ONE, AT 1000 FEET -- AGAIN, GOING FROM MEMORY -- I BELIEVE THE DESCENT RATE WAS IN THE NEIGHBORHOOD OF 1500 FEET IN MINNESOTA IT WAS TWO PLUS TIMES THE VALUE NORMALLY WAS. SO, IN ANSWER -- IN ESSENCE, THINGS WERE HAPPENING TO-PLUS TIMES MEN IT NORMALLY WOULD.

>> WE HAVE A TIME COMPRESSION DUE TO THE VERTICAL DESCENT RATE IN EXCESS OF WHAT WE WOULD EXPECT TO SEE AT THIS POINT AND I BELIEVE MEMBER WEENER ASSAYS IS A QUESTION, WAS THAT A LOAN 1500 FEET A MINUTE WAS ENOUGH FOR THE GORE AROUND?

>> YES, MAMMA.

>> -- YES, MA'AM.

>> ANY OTHER QUESTIONS FROM THE PANEL? THE TECH PANEL HAS ADDITIONAL QUESTIONS.

>> THANK YOU, MADAM CHAIR. DR. WILSON.

>> COULD YOU PULL UP EXHIBIT 2A, PAGES 63, PLEASE? CAPTAIN MIDDLETON, WHILE HE IS GETTING THE EXHIBIT PULLED UP, I AM INTERESTED IN UNDERSTANDING WHAT CUES WERE A AVAILABLE TO THE CREW TO ALERT THEM THAT THE APPROACH WAS NOT PROPERLY SEQUENCED?

>> ARE YOU GOING TO BRING UP THE ATTACHMENT THAT SHOWS THE PICTURE OF THE MD? OK. AS I SAID EARLIER, ONE OF THE ITEMS THAT HAS TO BE DONE IS THE APPROACH HAS TO BE LOADED INTO BEING FMC, WHICH IS THE LOWER SCREEN YOU'RE LOOKING AT, SHOWING YOU THE NAV DISPLAY WHICH CORRESPONDS WITH THE COMPUTER HAS. IF THE APPROACH HAD BEEN EXTENDED, AS WE USED THE TERM EARLIER, YOU WOULD BE MISSING THE LINE THAT YOU SEE RIGHT NOW WHERE THE AIRPLANE IS. THE LOWER PART OF THE CENTER. BASICALLY THE LINE THAT YOU SEE THERE IS THE LAST AND THAT THE AIRCRAFT IS NAVIGATING, WHICH IS THE LINE FROM LOUISVILLE TO BIRMINGHAM. HAD THEY EXTENDED THE PANEL, THAT LINE WOULD NOT BE THERE. THAT WILL BE THE PRIMARY QUEUE THAT SOMETHING IS AMISS. IF THEY HAD EXTENDED THAT PROPERLY, JUST BENEATH THE AIRPLANE TO THE LEFT YOU CAN SEE WHAT RIGHT NOW SAYS .00 LEFT, BECAUSE THEY ARE ACTUALLY SEND IT -- CENTERED ON THE LINE BUT ONCE THEY EXTENDED THE FINAL THE COMPUTER IS LOOKING AT THE LINE FOR THE APPROACH, WHICH IN THIS CASE WOULD ACTUALLY EAT TO THE LEFT OF THE APPROACH SO THERE SHOULD BE A CUE I AM LATERALLY LEFT OF THE COURSE. THAT SHOULD BE SECOND CUE. A THIRDCUE THAT IS NOT VISIBLE HERE BUT DOWN ON THE FMS ITSELF. YOU CAN SEE IT IN THIS PICTURE, TO THE RIGHT OF THE SCREEN IS A VERTICAL DEVIATION OR THE FOOTBALL, AS MEMBER SOMEWHAT -- SUMWALT REPEATEDLY THERE IS A LITTLE V INDICIE ON THE TOP SCALE OF WHAT IT IS SHOWING THAT THEY ARE BENEATH THE PROTECTED PATH THAT IS OUT THERE BUT ON THE LOWER SCREEN OF THE AIRCRAFT THEY CAN ACTUALLY SEE THEIR DISTANCE FROM THAT, IN FEET. AND UNDER NORMAL CONDITIONS THAT NIGHT, WHERE THEY WERE RIGHT THERE, AS THEY HAD EXTENDED THE FINAL THEY WOULD HAVE BEEN IN THE NEIGHBORHOOD OF ABOUT 3000 FEET BENEATH A SLOPING UPWARD GLIDE PATH THAT THEY ARE APPROACHING. BUT BECAUSE THEY HAD NOT SEQUENCED IT PROPERLY, THE NUMBER THEY WOULD HAVE SEEN WOULD BE MINUS9999, HONEYWELL SYSTEM DEFAULT OF THE HIGHEST NUMBER THEY COULD GIVEN IT WILL BE PAID ON THAT, NOT COUNTING DOWN. THAT IS ANOTHER QUEUE THAT SOMETHING IS AMISS -- CUE THAT SOMETHING IS AMISS. 1, 2, 3 --I THINK THERE WERE MULTIPLE CUES TO SHOW THEM THAT SOMETHING WAS AMISS. DOES THAT ANSWER YOUR QUESTION?

>> YES. IF THEY CAN BRING UP PAGE 65, PLEASE. IS THIS THE DISPLAY YOU WERE SPEAKING OF?

>> YEAH, THE BOTTOM RIGHT WHERE IT SAYS VD, A AND THE -999 YOU'RE SEEING IS A DEFAULT NUMBER AND THE POSITION, THAT NUMBER SHOULD HAVE BEEN READING -34

HUNDRED FEET BECAUSE THEY ARE APPROACHING A PATH THAT IS OUT THERE AND IT WOULD WORK ITS WAY DOWN TO ZERO AS THEY JOIN UP ON IT. BUT IN THIS CASE IT WOULD NEVER GO DOWN.

>> IF YOU COULD ALSO BRING UP PAGE 64.

>> THANK YOU. OK, THIS IS THE ONE I COULDN'T REMEMBER. THAT IS A LISTING OF THE FLIGHT PLAN, AND BASICALLY EACH ONE OF THOSE POINTS THAT YOU SEE ARE NAMED SHOW UP AS WAYPOINT THE COMPUTER. NOTICE THE NUMBER AFTER -- YOU HAVING TP, AND KBMH, THERE'S A LINE CALLED FLIGHT PLAN DISCONTINUITY. I CANNOT SPEAK TO THE ARCHITECTURE OF HOW THE HONEYWELL SYSTEM WAS BUILT BUT I KNOW IF YOU LOW DEBT LOAD AND APPROACH INTO THE SYSTEM IT ON AND -- AUTOMATICALLY THROWS ONE OF THEM IN THERE AND I LIKEN IT TO A LOG IN THE ROAD. WHAT NEEDS TO BE UNDERSTOOD IS THAT AS LONG AS IT IS THERE, THE AIRCRAFT CANNOT SEQUENCE PASSED IT TO GET TO THAT POINT WHICH IS COLIG. THIS CONTINUITY IS SO STRONG THAT THE AUTOPILOT WILL NOT RUN OVER IT. AUTOPILOT WOULD TURN OFF. THAT WOULD BE ANOTHER CUE THAT SOMETHING IS AMISS.

>> AND ONE MORE, PAGE 54. THE RED CIRCLE ON THE ND.

>> MY APOLOGIES FOR NOT SEEING THAT ONE. THAT, THE LOWER RIGHT SCREEN CIRCLE IS SHOWING YOU THE DISTANCE TO THE ACTIVE WAYPOINT IN THE FLIGHT PLAN WHICH, IN THIS CASE, WAS BIRMINGHAM BECAUSE THAT IS WHAT THEY HAD BEEN CLEARED TO NOT LONGER AFTER THEY TOOK OFF AFTER THAT'S OUT OF LOUISVILLE. HAD A SEQUENCED THE APPROACH PROBABLY THAT WOULD BE READING DISTANCE ALONG THE APPROACH, NOT TO THE AIRPORT. SO THAT WOULD AGAIN HAVE BEEN ANOTHER CUE. AND THE TOP LEFT ONE IS THE ILS DME, WHICH, IN THIS CASE, IF THEY WERE GOING TO BE DOING A NON-PRECISION APPROACH WITHOUT VERTICAL GUIDANCE, AND IT IS ANOTHER CUE AS TO THEIR DISTANCE. BASICALLY THOSE TWO NUMBERS ARE NEVER GOING TO MARRY UP AT THIS POINT, WITH THE REALITY IS, THOSE TWO NUMBERS WOULD EVENTUALLY MARRY UP PRETTY CLOSELY TOGETHER IF THE APPROACH HAD BEEN CYCLED TOGETHER. MULTIPLE CUES THAT IT IS NOT RIGHT.

>> THANK YOU. THE TECHNICAL PANEL HAS ONE MORE QUESTION.

>> CAP INCREASES -- CAPTAIN KRIZ, WHAT IS AIRBUS'S PROCEDURES THEY EXPECT THE PILOT TO CONDUCT ON A SEEN GREAT ALERT ON A PILOT APPROACH. -- SINK RATE ALERT?

>> THE RESPONSE TO A SINK RATE ALERT ON AN APPROACH DEPENDS ON THE CONDITION OF THE APPROACH AND THE PHASE OF FLIGHT. SO, UNDER THE ASSUMPTION WE ARE AT NIGHT, WE ARE IN IMC, WE ARE BELOW MINIMUM, THE CORRECT EXPECTATION TO REACT TO A SINK RATE ALERT WOULD BE A GO AROUND.

>> SO, THE SINK RATE ALERT IS ENVIRONMENTALLY DEPENDENT?

>> THE REACTION OF THE SINK RATE ALERT AND ON THE SITUATIONAL AWARENESS AND THUS DEPENDS ON THE SITUATION OF THE FLIGHT.

>> WHAT DOES AIRBUS TEACH ON THE A-300 IN THE PILOT RESPONSE FOR A TOO LOW TERRAIN ALERT?

>> THE EXPLANATION GIVEN IN THE DATE -- DOCUMENTATION IS VERY MUCH THE SAME. THAT TOO LOW TERRAIN ALERT IS NORMALLY REPLIED WITH A GO AROUND MANEUVER.

>> JUST TO UNDERSTAND, THE SINK RATE ALERT, I ASKED IF IT WAS ENVIRONMENTALLY, INDICATING IN IMC CONDITIONS. WHAT IF THE CONDITIONS ARE VISUAL AND THEY RECEIVE THE SINK RATE ALERT ON THE APPROACH? WHAT WOULD THE RESPONSE BE?

>> IF THE PILOT CAN CLEARLY DISTINGUISH THAT HIS POSITION IN RELATION TO THE TERRAIN IS ACCEPTABLE AND THAT HE CAN MAKE A MANEUVER TO SILENCE THE SINK RATE WARNING INDIVIDUAL CONDITIONS HE MAY -- THE CONTINUATION OF THE FLIGHT AS POSSIBLE.

>> I JUST HAVE A COUPLE OF QUESTIONS. WE CAN PULL UP 2A. ONE OF THE LAST ONES WE HAD. I BELIEVE IT WAS 54. CAPTAIN KRIZ, THIS IS GOING BACK AGAIN TO WHAT WE SEE ON THE SIDE OF THE NAV GRAIN WITH A VERTICAL DEVIATION WHERE WE HAVE THE INDICATION AT THE TOP END OF THE RANGE -- THE NAV SCREEN. CUES TO THE PILOT AS WE ALSO HAVING -999 DISPLAY DESCRIBE A CAP THE MIDDLE CAN FIT ANYCUES THIS IS A VALID VALUE ARE ANY INDICATION THERE'S SOMETHING NOT RIGHT ABOUT THIS?

>> APART FROM THE CONDITIONS AND INDICATIONS THAT CAPTAIN MIDDLETON MENTIONED, THERE IS ONE MORE. IF THE PILOT LOOKS AT THE FMS PROGRESS PAGE THERE ARE TWO BANK DISTANCES TO BE AS LATE. FLIGHTPLAN DISTANCE TO THE DESTINATION THAT SUMS UP THE DISTANCES OF ALL THE WAYPOINTS COME PAIN -- CONTAINED IN THE FLIGHTPLAN, NORMALLY THE PILOT SELECTS THE ACTIVE RUNWAY HE IS GOING TO FLY. AND IN THAT SITUATION AS SHOWN HERE ON THE SCREEN, THERE WOULD BE A MISMATCH BETWEEN THOSE TWO DISTANCES.

>> CAPTAIN MIDDLETON, WHAT THAT'S ONE OTHER QUESTION, THE TYPE OF NAV DISPLAY WHERE THERE IS THIS TYPE OF LINE THAT APPEARS, IT IS SOMETHING A CREW SEES FRANCE AND PERFORMING A ILS APPROACH AND THEY WILL NOT UTILIZE THE PROFILE MODE AND PROBABLY HAVE THIS CONTINUITY AND THEIR APPROACH AS THEY SET UP, BUT GOING INTO ILS TYPE OF LANDING?

>> NO, NO. WE LOADED THE SAME WAY AND EXTEND THE FINAL THE SAME WAY. THAT WOULD NOT BE NORMAL.

>> THAT IS SOMETHING THAT SHOULDN'T BE THERE NO MATTER WHAT APPROACH YOU ARE FLYING?

>> THAT IS CORRECT.

>> THANK YOU. THAT IS ALL I HAVE.

>> THE TECHNICAL PANEL HAS NUMBER QUESTIONS.

>> I KNOW THAT SOME OF THE PARTIES, INCLUDING TWU, LOOKS LIKE THERE WAS A PERIOD OF TIME YOU LOOK LIKE YOU WANTED TO JUMP IN WHENEVER SOME QUESTIONS HAPPENING EARLY. YOU'RE ALL GOOD? ANY OTHER ADDITIONAL WRAPUP OR QUESTIONS FROM THE PARTY? IPA.

>> FOR CAPTAIN LAURENTZ, AND CAPTAIN I WOULD ENTHUSIASTICALLY AGREE WITH MEMBER SUMWALT THAT SOMETHING YOU DO IN FREQUENTLY WOULD DEFINITELY BE MORE INHERENTLY CHALLENGING AND TO TAG ON NUMBER ROSE CAN --ROSEKIN'S RUSSIAN THE DATA POINT, THERE IS TRAINING THAT RELIES ALMOST EXCLUSIVELY ON DATA POINT IN THE MORE DATA POINTS THE BETTER. I WANT TO ASK YOU TO CLARIFY WHY YOU STATED, HAVING DATA POINTS FOR NON-PRECISION APPROACHES WOULD NOT NECESSARILY MATTER. THANK YOU.

>> I APOLOGIZED AS BECAUSE I UNDERSTOOD EVERY THING YOU SAID RIGHT UP TO THE VERY QUESTION ITSELF.

>> YOU MENTIONED TO MEMBER ROSEKIND THAT YOU DO NOT BELIEVE HAVING ADDITIONAL DATA POINTS SAYING WE SHOOT NOT PRECISION APPROACHES SOMEHOW WOULD REALLY MAKE A BIG DIFFERENCE AND I WOULD ASK YOU TO CLARIFY THAT.

>> I APPRECIATE THAT. THE CONTEXT OF THE RESPONSE WITH DATA POINTS RELATIVE TO, THAT'S RELEVANT TO, IF I RECALL CORRECTLY, IF WE COULD QUANTIFY THE NUMBER OR PERCENTAGE OF HER PRECIOUS -- APPROACHES ISSUED NON-PRECISION IN LINE OPERATIONS. I AM NOT SURE THAT WOULD DRIVE US TO A DIFFERENT DESTINATION A LOOK INTO HOW WE TRAIN IN OUR SOP'S AND EXPECTATIONS RELATIVE TO THAT. I BELIEVE THAT WITH THE CONTEXT OF MY RESPONSE.

>> THANK YOU, MADAM CHAIRMAN.

>> ANY ADDITIONAL QUESTIONS FROM THE PARTIES? THANK YOU ALL FOR YOUR COOPERATION. I KNOW WE ARE PUSHING. THERE IS A LOT MORE THAT COULD BE SAID ABOUT ALL OF THESE ISSUES THAT YOU ARE BEING QUESTIONED ON. THANK YOU FOR PROVIDING ANSWERS TO THE QUESTIONS. WE MAY HAVE SOME FOLLOW-UPS OF THAT WILL COME FROM OUR STAFF, AND WE WILL CONTINUE TO WORK WITH YOU ON THOSE. IT IS NOW11:28 AND WE WILL TAKE A ONE HOUR BREAK FOR LUNCH AND WE WILL RESUME AT 12:30.

>> WELCOME BACK. WE WILL NOW PROCEED TO THE WORK ON THE SECOND PANEL. WE WILL NOW SWEAR IN THE SECOND PANEL.

>> THANK YOU. WITNESS PANEL TO IS ALREADY SEATED AND READY TO GO. WITNESSES ARE COMPOSED OF THE FOLLOWING INDIVIDUALS. TO MY LEFT, THE BOARD OF INQUIRY. DR. TOM, LORI ESPOSITO, CAPTAIN JOHN SCHNEIDER -- JON SYNDER, LARRY PARKER, ALURI ESPOSITO, TOM CHIDESTER, ROBERT BURKE. THE PANEL TO MY RIGHT, DR. CATHERINE WILSON, DOC THERE -- CAP DID DAVID LEARN AND MISSED DANA SCHOLZ.

>> I WILL NOW ASK THE WITNESSES PLEASE STAND TO BE SWORN IN. COULD YOU PLEASE RAISE YOUR RIGHT HAND. DO YOU SWEAR OR AFFIRM TO TELL THE TRUTH? PLEASE BE SEATED. MADAM CHAIRMAN, THESE WITNESSES HAVE BEEN PREQUALIFIED UNDER RESPECT OF EXPERIENCE AND QUALIFICATIONS APPEARING IN THE DOCUMENT IN GROUP ONE. I WILL NOW TURN QUESTIONING OVER TO DR. CATHERINE WILSON.

>> THANK YOU. GOOD AFTERNOON. IF WE COULD START WITH DR. CHIDESTER AND THEN MOVES TO MY RIGHT.

>> I AM DR. TOM CHIDESTER. WORKING FOR THE FAA.

>> MY NAME IS LORI ESPOSITO. I AM REPRESENTING THE INDEPENDENT PILOTS ASSOCIATION AS THE FATIGUE COMMITTEE CHAIRPERSON. -- LAUR ESPOSITO. I'M CAPTAIN JON SYNDER, CHAIRMAN OF THE FATIGUE WORKING GROUP. I REPRESENT QPS.

>> I AM ROBERT BURKE WITH THE FEDERAL AVIATION ADMINISTRATION, MANAGER OF THE AIR CARRIER SYSTEMS.

>> LARRY PARKER, SAA-300 STANDARDS AND TRAINING MANAGER.

>> THANK YOU. I WOULD LIKE TO START WITH YOU, CAPTAIN PARKER. COULD YOU PLEASE DESCRIBE THE PHILOSOPHY AT UPS.

>> AS I START TO EXPLAIN, CAN I ASK TO BRING UP EXHIBIT 14, CHARLIE TO HELP US OUT. LOOKING AT THE PHILOSOPHY AT UPS AND LOOKING AT AS FAR AS THE CULTURE IS CONCERNED. AS FAR AS THE POLICIES. ALSO LOOKING AT THE TRAINING. OUR CULTURE, WE HAVE BEEN DOING AND PRACTICING THIS FOR OVER TWO DECADES. WE DO PRACTICE THIS IN OUR OPERATION. WE PRACTICE IN TRAINING. AS YOU SEE, WE HAVE EVEN A MISSION STATEMENT THAT WE TALK ABOUT THAT IS SO IMPORTANT TO US. IF YOU LIKE, I WILL BE MORE THAN HAPPY TO READ IT TO YOU OR YOU CAN READ IT THERE IF YOU CAN. IT IS ALL IN OUR MANUALS. EVEN IN OUR TRAINING MANUALS. WHEN WE TALK ABOUT TRAINING, WE ARE GOING TO HIT THE IMPORTANT ELEMENTS OF CRM. WE ARE GOING TO LOOK AT STANDARD OPERATING PROCEDURES, DECISION-MAKING. ALL OF THOSE ARE VERY IMPORTANT TO US. OUR CULTURE AND PART OF OUR DNA.

>> WE LEARNED IN PANEL ONE IT IS UNDER AQP. CAN YOU EXPLAIN HOW IT IS INCORPORATED INTO TRAINING?

>> YES. IF I CAN, I WOULD LIKE TO TAKE YOU AS A NEW PILOT AT UPS AND TALK ABOUT THE TRAINING. WHEN YOU JOINED UPS AS A NEW CREW MEMBER, YOU GO TO ACCOMPANY INDOCTRINATION FOR THE FIRST WEEK. PART OF THAT WEEK, WE HAVE A FIRST I WERE STANDALONE TRAINING, WHICH INCORPORATE ALL OF THE IMPORTANT ELEMENTS. GIVING THE FOUNDATION OF WHAT THEY NEED TO TAKE CRM TO THE LINE. THE CREW MEMBERS THEN ASSIGNED TO THEIR AIRCRAFT, AND THEN WE HAVE A INITIAL QUAL. THE INITIAL QUAL ROGUE ROOM IS A PROGRAM THAT INCORPORATES IT IN JUST ABOUT EVERY PHASE OF IT. IF YOU LOOK AT ONE YEAR AND COME BACK FOR RECOVERING TRAINING, WE ALSO HAVE CRM INVOLVED IN THAT. IN THAT WE HAVE BEEN 18-36 MONTHS. WE BRING THAT BACK TO A SEMINAR. CREW MEMBERS HAVE AN OPPORTUNITY TO TAKE THE FUNDAMENTALS AND USE THEM ON THE LINE, OBSERVE THEM. NOW THEY HAVE A CHANCE TO ENHANCE THROUGH THE SEMINAR. WE ALSO HAVE ANOTHER STANDALONE. THIS IS OUR NEW CAPTAIN AND COMMAND COURSE. THIS IS FOR FIRST TIME CAPTAINS AT UPS. THEY HAVE CRM TRAINING THEY GO THROUGH BUT IS MAINLY FOCUSED ON THE MAIN ELEMENTS.

>> AS A PART OF CQ, IS FATIGUE INCLUDED?

>> YES, IT IS. WE INCLUDE IT IN THE CONTINUING QUAL, RECURRED TRAINING. WE ALSO TALK ABOUT IT IN ALL THE COURSES THAT I MENTIONED BEFORE. ARE CLASSES, FLIGHT

CREW FACTORS WORKSHOP, AND WE ALSO TALK ABOUT IT IN THE NEW CAPTAIN IN COMMAND COURSE.

>> WHAT INFORMATION REGARDING FATIGUE MANAGEMENT ARE CREWS EXPECTED TO INCLUDE AS PART OF THE SAFETY BRIEFING?

>> CAN YOU REPEAT THE QUESTION ONE MORE TIME?

>> CREWS ARE REQUIRED TO PROVE -- CONDUCT A SAFETY BRIEFING PRIOR TO EACH FLIGHT, AND I AM CURIOUS WHAT SORTS THEY ARE REQUIRED ON FATIGUE ARE -- REQUIREMENT.

>> WE WILL INCLUDE PARTS OF THE BRIEFING THAT IS INCLUDED IN ANY TYPE OF THREATS THAT MAY BE PART OF THE TRIP. IF THERE IS ANY FATIGUE INVOLVES OR A CREW MEMBER IS TIRED OR ANYTHING LIKE THAT, THAT SHOULD BE BROUGHT UP INITIALLY AND RIGHT AWAY. THAT IS PART OF THE BRIEFING. PART OF THE THREAT THAT WE LOOK AT IT.

>> WHAT OTHER SORT OF INFORMATION IS INCLUDED IN THE BRIEFING? THANKS IF YOU LOOK AT THE SAFETY BRIEFING, THAT IS DONE BEFORE THE AIR TAX -- AIRCRAFT EVEN TAXIS OUT. IT IS OPPORTUNITY FOR THE CAPTAIN TO SET THE TONE IN THE COCKPIT. SET THE TONE THAT THERE IS GOOD COMMUNICATION. WE TALK ABOUT STANDARD OPERATING RECEIPT JURORS. WE TALK ABOUT ALL OF THE THREATS THAT MAY AFFECT US IN THAT FLIGHT. THERE ARE THREATS WITH WHETHER, ANYTHING LIKE THAT. SO IT SETS THE TONE. IT IS EVERY THING SETS THE TONE AND THE IT.

>> HOW DO THE BRIEFINGS HELP CREWS PRIOR TO THE FLIGHT?

>> IT HELPS US SET THE TONE. HELPS US TO IMPROVE THE CALM OF THE COMMUNICATION IN THE COCKPIT. WE WANT TO MAKE SURE OUR CREWS ARE ACTIVELY MONITORING THE SAFETY OF THE FLIGHT. WE WANT TO MAKE SURE THEY HAVE THE FREE COMMUNICATION THAT WILL ENHANCE THE DOCKET.

>> HOW DO CREWS ENSURE THAT THEY DO NOT BECOME SO REPETITIVE THAT THEY LOSE THE INFORMATIONAL VALUE?

>> I LOOK AT THE BRIEFING, PROBABLY ONE OF THE MOST IMPORTANT. GOING BACK TO SETTING THE TONE, WE HAVE CREWS THAT FLY TOGETHER A LOT. BUT WE EXPECT THE CREWS TO CONDUCT EVERYTHING EVERY TIME THEY FLY. IT DOES SET THE TONE. IT ACTUALLY CONTINUES TO IMPROVE THE CRM AS FAR AS THE FLIGHT IS CONCERNED.

>> IN YOUR PREVIOUS INTERVIEW YOU HAD STATED IF THE PROFILE DID NOT CAPTURE ON APPROACH, YOU WOULD EXPECT THE FLIGHT CREW TO ABANDON THE APPROACH. I BELIEVE THE CAPTAIN A LOOTED TO THE SAME CONCEPT. THAT IS NOT IN GUIDANCE ANYWHERE. DO YOU KNOW WHY THAT IS NOT IN GUIDANCE?

>> I THINK IT IS -- I THINK THE CAPTAIN HAS MENTIONED THIS EARLIER ON IN THE FIRST PANEL THAT ANY TIME THAT WE BRIEF SOMETHING THAT DOES NOT HAPPEN, AND IT IS GOING TO BE A SAFETY CONCERN, WE EXPECT THE CREWS TO ABANDON THAT. I THINK THAT IS GOOD SITUATIONAL AWARENESS. CONDUCTED IN MAKING SURE WE CONDUCT A SAFE FLIGHT. IF THINGS ARE NOT DONE CORRECTLY, WE EXPECT THEM TO ABANDON THE

APPROACH.

>> ONCE A CREW STARTS AT APPROACH, WHAT FACTORS CAN AFFECT HOW READILY THE NEED TO ABANDON THE APPROACH AND GO AROUND?

>> I THINK THERE ARE SEVERAL THINGS YOU WOULD LOOK TO. WE HAVE THE STANDARD OPERATING PROCEDURES THAT ARE DESIGNED FOR A GIVEN APPROACH. YOU SHOULD ADHERE TO THOSE. WHEN SOMETHING CHANGES, AS IT DID HERE, IT IS A CHALLENGE, RICHARD REALLY FOR THE PILOTS MONITORING. IT CAN BECOME UNCLEAR AS TO WHAT WE WILL DO NEXT. I WOULD HOPE TO SEE THE PILOT FLYING IN THAT CASE VERY CLEARLY VERBALIZE WHAT THE INTENTIONS ARE AND WHAT THEY NEED PILOT MONITORING TO DO IN THIS CASE. THAT IS LIKELY TO PRODUCE A MOMENT OF CONFUSION AND REORIENTATION. I THINK THAT IS WHY YOU HEAR CAPTAIN PARKER TALKING ABOUT THE DESIRE TO SEE THEM ABANDON THE APPROACH.

>> FROM A HUMAN FACTORS PERSPECTIVE, IS IT EASY FOR CREW TO ABANDON AN APPROACH?

>> IT DEPENDS. THERE ARE SEVERAL WAYS TO LOOK AT THIS. IF YOU LOOK AT THE RESEARCH AT NASA, IT WOULD SUGGEST PEOPLE ARE RELUCTANT TO ABANDON A PLAN THAT IS GOING WRONG, AND THAT SOMETIMES YOU DO SEE A SEVERANCE IN A COURSE OF ACTION THAT YOU WOULD LIKE TO SEE INTERRUPTED. I THINK IF YOU LOOK AT HOW APPROACHES ARE PLANNED, VERY OFTEN WE SHOULD THINK OF THE INTENTION TO FLY AT APPROACH TO A MISSED APPROACH. THERE ARE RISKS ASSOCIATED WITH AN UNPLANNED MISSED APPROACH AS WELL. THOSE CAN GO WRONG AS WELL. I WOULD HOPE AS WE SEE ALL PLAN ON APPROACH IN THIS AN APPROACH, THAT ALLEVIATES SOME OF THE PERSON REFERENCE -- PER SEVERANCE ISSUE.

>> BACK TO YOU, CAPTAIN PARKER. HOW DOES UPS INSTRUCT PILOTS TO MONITOR AND CROSS CHECK LANDING?

>> WE HAVE WHAT WE CALL PILOT MONITORING PHILOSOPHY. IF YOU LOOK AT IT IN TWO WAYS, LOOK AT IT AND PILOT MONITORING DUTIES, IT IS SPELLED OUT IN ALL THE MANUALS. SPELLED OUT IN THE AIRCRAFT OPERATING MANUAL. WE LOOK AT PILOT MONITORING SKILLS, AND THOSE SKILLS ARE TRAINED IN THE HUMAN FACTORS TRAINING. WE TALK ABOUT VISUALIZING, COMPARING AND VERIFYING AND THIS IS SPELLED OUT THROUGH THE MANUALS.

>> WHO EVALUATES THE ABILITY TO DO THIS? WE HAVE UNDER STANDARDS AND TRAINING THE STANDARD MODEL. IT IS ONE OF THE GRADED AREAS THAT WE LOOK AT AND MONITOR. IT IS PART OF WHAT WE CALL TASKS. OUR TASK ANALYSIS THAT HAVE EARMARKED CRM THROUGHOUT THE TRAINING PHASE. WE ALSO LOOK AT IT WHEN WE DO LINE CHECKS. IT IS ALSO PART OF THE LAND CHECK ITEMS THAT WE LOOK AT.

>> THANK YOU. LEX HOW GOOD ARE PILOTS AT MONITORING --

>> HOW GOOD ARE PILOT NOT MONITORING?

>> HISTORICALLY, YOU WOULD SAY THERE ARE ACCIDENTS THERE BUT THE INDUSTRY AND FAA HAS REALLY REFOCUSED ON TRAINING AND EMPHASIZING MONITORING. AS I

LOOK THROUGH THE EXHIBITS, I SEE SOME REAL STRENGTHS AND EMPHASIS ON MONITORING. YOU SEE GOOD DEFINITION ON WHAT THE ROLE OF THE CAPTAIN AND MONITORING IS SUPPOSED TO BE. YOU EVEN SEE IN THE CHECKING ENVIRONMENT, YOU SEE AN ARTICULATION OF GRADING SCALES TIED TO THE ROLES AND TIED TO MANAGEMENT IN GENERAL. I WOULD SAY THERE IS A VULNERABILITY, BUT I WOULD LIKE TO THINK THINGS ARE GETTING BETTER WITH THE EMPHASIS WE HAVE SEEN.

>> ARE THERE ALTERNATIVES TO TRAINING PRIVATE THEM AS SUCH AS CONSIDERING CHANGES TO CHECKLIST TO HELP IMPROVE MONITORING?

>> I THINK THAT IS POSSIBLE. WE HEARD THAT THIS MORNING, AUTOMATED CALLOUT, MINIMUMS, LIGHT FOR MINIMUMS AVAILABLE ON SOME AIRCRAFT. THAT IS ONE WAY OF GETTING AROUND OWNER ABILITY AND MONITORING.

>> IF A PILOT MONITORING THIS IS A CALLOUT, HOW IS A PILOT TRAINED TO RESPOND TO THAT YEAH COME? IF I CALLOUT AS MISSED, THE EYELID FLYING IS TO MAKE THE CALLOUT. THAT IS PART OF THE STANDARD OPERATING PROCEDURE. IF IT IS MISSED, IT HAS TO BE MADE BY THE PILOT FLYING.

>> IS THERE A CERTAIN AMOUNT OF TIME AFTER CALL IS MISSED THAT THE CALL IS IGNORED OR WHAT THE PILOT FOLLOW-UP AS SOON AS POSSIBLE THAT HE RECOGNIZES THE CALL WAS NOT MADE? R

>>: IF THE CALL WAS NOT MADE, THE FIRST THING YOU DO IS MAKE THE CALL. THEN I WOULD CHECK PILOT MONITORING TO MAKE SURE THEY HAVE THE SITUATIONAL AWARENESS. IT MAY HAVE BEEN A MOMENTARY DISTRACTION OR ANYTHING, BUT I THINK IT IS IMPORTANT TO CONFIRM AND MAKE SURE THEY ARE ON THE SAME WAVELENGTH AS THE PILOT FLYING.

>> IF THE PILOT MADE A CHANGE TO A BRIEF, WHAT WOULD YOU EXPECT THEM TO DO?

>> I WOULD EXPECT THE PILOT MONITORING TO FIRST ASK THE QUESTION WHY THERE WAS A CHANGE, AND IT THERE WAS A SAFETY ISSUE OR ANY SAFETY IS JEOPARDIZED IN ANY POINT OF THAT? THE PILOT MONITORING COULD GO AROUND OR ABANDON THE APPROACH OF THAT TIME.

>> IS THIS PROVIDED IN ANY TRAINING WHERE A PILOT FLYING MAYBE COACH TO CHANGE OF PROCEDURE, WHICH WAS THEN REQUIRED THE PILOT MONITORING TO RECOGNIZE THAT AND RESPOND? I THINK WE LOOK AT TRAINING OVERALL. I THINK WE ARE TRAINED TO LOOK AT ALL OF THE SAFETY ASPECTS OF THE FLIGHT. ANY TIME SAFETY IS IN QUESTION OR IN JEOPARDY, WE EXPECT THE CREW MEMBERS IN THE IT TO QUESTION IT, AND TO ASK THEM NOT TO ABANDON THE APPROACH OR FIND OUT WHAT IS GOING ON TO MAKE THE SITUATIONAL AWARENESS. IT IS, IF WE TAKE A LOOK AT THE PILOT DUTIES LOCATED IN THE FOM, IT SPELLS THAT OUT.

>> WE HAVE HEARD THE WORD SITUATIONAL AWARENESS USED SEVERAL TIMES. CAN YOU BRIEFLY DESCRIBE THE RELEVANCE TO PILOT MONITORING?

>> RECENTLY IS A CHALLENGE. I LIKE THE CHALLENGE THAT DR. MICHAEL ENSLEY HAS LAID OUT. YOU THINK ABOUT SITUATIONAL AWARENESS AS WHETHER I KNOW OR

UNDERSTAND DATA. THE INTERMEDIARY THINGS THAT I WILL CARE I -- CARRY OUT AND LONG-TERM FUTURE COURSE IS WHERE I UNDERSTAND WHAT THE IMPLICATIONS ARE AND WHAT I HAVE PLANNED TOWARDS. IN TERMS OF MONITORING, WE WRITE MONITORING DUTIES TOWARDS DATA, CROSSCHECKING DATA. IT BECOMES MORE AMBIGUOUS AS YOU MOVE TOWARDS THE OTHER TARGETS AS TO WHAT THE PILOT MONITORING DUTIES ARE.

>> TO WHAT DEGREE IS THIS INFLUENCED BY SITUATIONAL AWARENESS OF THE CREW?

>> CERTAINLY A BIG PART OF IT. INFORMATION IS DISTRIBUTED IN THE COP IT. THERE IS NO WAY AROUND THAT. PLANS ARE DISTRIBUTED BETWEEN THE PILOTS. IT IS THE COMMUNICATION BETWEEN THE TWO OF THEM THAT MAKES THE PLANS KNOWN AND DEVIATIONS ALERTED AND CAUSES PEOPLE TO RESPOND HERE YET MEDICATION IS FUNDAMENTAL, ALONG WITH STANDARD OPERATING PROCEDURES.

>>

>> AND IS THERE RESEARCH TO SHOW THAT IF ACRE HAS POOR SITUATIONAL AWARENESS THAT, THEREFORE THEY WOULD HAVE PORK SYNDICATION?

>> I DON'T KNOW IF I WOULD NECESSARILY PHRASE IT THAT WAY.

>> SITUATIONAL AWARENESS IS OFTEN A DESCRIPTIVE TERM AND SOMETHING THAT WE TALK ABOUT POST-HOPE -- POST HOC. I THINK THE TWO THINGS GO TOGETHER. IF YOU ARE MAINTAINING GOOD SITUATION AWARENESS AS SHE DESCRIBED IT, YOU WILL SEE THINGS ABOUT CRITICAL ELEMENTS. I DON'T KNOW WHERE THE CAUSE AND EFFECT PIECE IS.

>> YOU HEARD CAPTAIN MIDDLETON IN PANEL ONE DESCRIBE THE VARIOUS QUEUES THAT WOULD HAVE BEEN AVAILABLE TO THE CREW TO ALERT THEM THAT THEY HAD SEQUENCED THE APPROACH RIGHT. WHAT ARE THE HUMAN LIMITATIONS THAT MIGHT CAUSE A PILOT TO IGNORE THESE QUEUES OR DISMISS THEM AS BEING RELEVANT?

>> HUMAN BEINGS ARE PROCESSORS OF THEM -- INFORMATION. WE SEE WHAT WE ARE FOCUSED ON. WE SEE WHAT WE NEED TO DO ACCORDING TO THE PLANNING PHASE, AND THEN WE LOOK FOR THINGS THAT ARE CLEARLY DEVIATIONS. THE THINGS THAT WE SAW THIS MORNING ARE DEVIATIONS. THEY WERE NOT PICKED UP. IT HAPPENS. PEOPLE MAKE MISTAKES. THERE IS SOMETIMES MORE INFORMATION AVAILABLE AND YOU CAN COMPLETELY PROCESS, SO YOU FOCUS IN.

>> CAPTAIN PARKER, COULD YOU BRIEFLY DESCRIBE UPS'S POLICY ON STANDARD OPERATION PROCEDURES?

>> THE STANDARD OPERATION PROCEDURES SAY IT IS AN IMPORTANT ELEMENT OF CRM. IT IS MANDATORY -- A STANDARD OPERATING PROCEDURES ARE POLICIES AND PROCEDURES LIKE WE HAVE BEEN ACTING FOR THE LAST TWO DECADES, POLICIES AND PROCEDURES THAT ARE PART OF UPS. WE ALSO LOOK AT THE INDUSTRY STANDARDS AS FAR AS POLICIES ARE CONCERNED. IT IS SPELLED OUT IN OUR MANUALS. IT IS PART OF -- IT IS INTEGRATED IN JUST ABOUT ALL OF OUR MANUALS WHEN WE TALK ABOUT STANDARD OPERATING PROCEDURES. HOW IS IT TRAINED AND EVALUATED? PROBABLY THE MOST IMPORTANT ITEM ON THERE IS THAT IT IS MANDATORY, AND WE SPELL THAT OUT IN OUR SOM -- FOM IN OUR 02, 02, 0601.

>> HOW ARE YOU UPS PILOTS ADHERING TO STANDARD OPERATING PROCEDURES, NOT ONLY FLYING LIFE, BUT ALSO IN TRAINING? CLICK THEY DO A VERY GOOD JOB. --

>> THEY DO A VERY GOOD JOB. ACCORDING TO OUR DATA AND LINE CHECKS, ACCORDING TO WHAT WE SEE IN TRAINING, THE MAJORITY OF OUR PILOTS DO AN OUTSTANDING JOB WHEN IT COMES TO STANDARD OPERATING PROCEDURES, YOU KNOW, ABIDING BY THEM. WE FEEL THAT WHEN YOU TAKE A CLOSE LOOK AT IT, WE MONITOR IT ALL THE TIME, BUT TO ANSWER YOUR QUESTION, WE DO A GREAT JOB WITH THAT.

>> AND AS A CAPTAIN, HOW DO YOU PERSONALLY HANDLE DEVIATIONS FROM STANDARD OPERATING PROCEDURES WHEN YOU ARE FLYING WITH ANOTHER PILOT?

>> I ADDRESS IT RIGHT AWAY. FIRST, IT IS MANDATORY, AS I MENTIONED BEFORE. AND IF A CREW MEMBER THAT I'M FINE WITH DOESN'T STICK WITH THE STANDARD OPERATING PROCEDURES, IT HAS TO BE ADDRESSED RIGHT AWAY.

>> YOU MENTIONED THE DATA FROM LINE CHECKS OR SIMULATOR OBSERVATIONS. HOW IS THIS DATA MADE AVAILABLE TO YOU? HOW ARE YOU MADE AWARE OF STANDARD OPERATING PROCEDURES?

>> WE HAVE OUR FOLK LOVE. -- OUR FOLKA. WE HAVE PILOT REPORTS. WE TAKE ALL OF THOSE INPUTS TO MONITOR WHERE WE ARE WITH OUR STANDARD OPERATING PROCEDURES.

>> AND DR. CHIDESTER, FROM A HUMAN FACTOR PERSPECTIVE, HOW TO CENTER OPERATING PROCEDURES -- HOW DO STANDARD OPERATING PROCEDURES PROVIDE A FRAMEWORK FOR THE TEAM FLIGHT?

>> IT IS THE THING THAT ALLOWS THE INTERCHANGEABILITY OF CREW MEMBERS.

>> AND WHAT KIND OF DEGRADATION CAN OCCUR IF THE SOP IS NOT FOLLOWED? X YOU CERTAINLY CREATE AMBIGUITY FOR THE OTHER PILOT. YOU CAN HAVE SOMETHING THAT ONE PILOT IS DEPENDING UPON, BUT THEN IS NOT PRESENT. IF SOME PIECE OF INFORMATION IS NECESSARY TO A DECISION AND THAT INFORMATION IS NOT COMMUNICATED, THAT DECISION CAN BECOME COMPROMISED OR FAIL. WHAT YOU SEE THEM PUT IN PLACE BY AIRLINES ARE WHAT YOU WOULD CALL LAYERS OF PROTECTION OR SAFETY NETS. AND AS YOU LOOK AT THINGS LIKE NON-PRECISION APPROACHES, YOU ARE -- YOU HEARD CAPTAIN PARKER TALK ABOUT IF A POT IS MISS, I EXPECTED THE OTHER PILOT TO RAISE THAT CALL OUT -- IF A POT IS MISSED, I EXPECTED THE PILOT TO RAISE THAT CALL OUT. AND YOU HAVE LAYERS OF PROTECTION AND THEN FOLLOWING BEHIND IT, YOU HAVE SYSTEMS.

>> CAPTAIN PARKER, ARE YOU FAMILIAR WITH THE ADVISORY CIRCULAR 120-701A, OPERATING PROCEDURE FOR CREW MEMBERS ECHO

>> YES, I AM.

>> HAS UPS ADMITTED THE GUIDANCE PUBLISHED IN THAT CIRCULAR?

>> YES, I BELIEVE WE HAVE. WE HAVE DONE THE GUIDANCE FOR THE STABILIZED APPROACH, YES, WE HAVE. TO ANSWER YOUR QUESTION, YES.

>> IN WHAT WAYS HAVE YOU IMPLEMENTED IT?

>> OUR STANDARD STABILIZER THAT WE TALKED ABOUT IN PARENT ONE, IT IS IMPLEMENTED IN OUR FOM. IT IS ADHERED TO BY ALL OF THE ITEMS THAT WE HAVE TALKED ABOUT IN PANEL ONE. IT IS PART OF OUR PROCEDURES. AND IT IS IN OUR FOM.

>> YOU MENTIONED YOU ARE THE CHAIR OF THE ADVISORY COMMITTEE. WHAT IS THE PURPOSE OF THAT GROUP?

>> IT IS A CRM ADVISORY COMMITTEE, AND SOMETIMES CALLED A STEERING COMMITTEE. IT IS A COMMITTEE MADE UP OF BOTH OUR ITA PILOTS AND ALSO MANAGEMENT PILOTS. EACH FLEET IS REPRESENTED. WHAT WE DO IN THOSE COMMITTEES IS WE REVIEW CRM ISSUES. WE REVIEWED TRAINING PROGRAMS. WE ALSO DISCUSS IMPLEMENTING DIFFERENT FOODS THAT WE DO -- DIFFERENT CLUES THAT WE DO EVERY YEAR. WE HAVE A CONTINUING QUAL THAT IS A PART OF CRM. AND MOST OF THESE ARE RECOMMENDATIONS THAT ARE GIVEN TO OUR DIRECTOR OF TRAINING. AND TO GET THEM APPROVED, WE ARE PART OF IMPLEMENTING AND DESIGNING THOSE PROGRAMS. AND I MIGHT ADD IF I COULD, WE HAVE BEEN DOING THIS FOR ALMOST 10 YEARS IN THIS COMMITTEE AND IT HAS BEEN A GREAT WORKING RELATIONSHIP, BOTH WITH THE INDEPENDENT PILOTS ASSOCIATION, AND OUR MANAGEMENT PILOTS. IT IS PROBABLY SOMETHING THAT HAS REALLY ENHANCED OUR CRM PROGRAM.

>> WHAT RECENT RECOMMENDATIONS HAVE THE CRM COMMITTEE MADE TO THE TRAINING DEPARTMENT?

>> AS WE DO EVERY YEAR, AND WHEN IT COMES TO OUR CONTINUING QUAL, WE HAVE RECOMMENDED WHAT THE THEMES ARE FOR THE COMING YEAR. LIKE THIS YEAR, OUR THEME IS AUTOMATION. AND THE AUTOMATION IS PART OF OUR CONTINUING QUAL. WE IMPLEMENT THAT IN JUST ABOUT EVERY PHASE OF OUR FOOT PRINT. FOR NEXT YEAR, WE HAVE RECOMMENDED AND IT HAS BEEN ACCEPTED, PILOT MONITORING. THOSE OF THE THINGS THAT WE DO FOR THE RECOMMENDATIONS. -- THOSE ARE THE THINGS THAT WE DO FOR THE RECOMMENDATIONS.

>> HAVE THERE BEEN ANY CHANGES IN DISCUSSION ABOUT CHANGES TO TRAINING SINCE THE ACCIDENT?

>> WHAT WE HAVE DONE, WE HAVE TALKED A LITTLE BIT MORE ABOUT PILOT MONITORING IN THIS YEAR'S 2014 CONTINUING QUAL. GOING OUT TO DO SOME BENCHMARKING WITH THE INDUSTRY. CAPTAIN LA GRANGE TALKED ABOUT THAT IN CAN'T -- PANEL ONE. HE TALKED ABOUT PILOT MONITORING AND MODERATION. WE HAVE TAKEN A LOOK AT THOSE COMPARED TO OUR OPERATION. WE ARE LOOKING AT WHERE WE CAN TAKE THE BEST PRACTICES FROM THE INDUSTRY. THAT IS WHAT WE HAVE DONE SINCE THEN.

>> AND DR. CHIDESTER, FROM THE LITERATURE, WHAT DOES THE RESEARCH SHOW AS THE NOMINAL REACTION TIME FOR A PILOT TO RESPOND TO AN EVENT?

>> IT DEPENDS ON WHAT IT IS. TO GIVE YOU AN EXAMPLE, THERE IS SOME RESEARCH THAT HAS COME OUT OF OUR TECHNICAL CENTER IN NEW JERSEY LOOKING AT WHERE CONTROLLERS COMMUNICATE TO PILOTS A POTENTIAL FOR COLLISION WITH ANOTHER AIRCRAFT OR WITH TERRAIN. THERE ARE SOME GOOD ESTIMATES ON THAT. YOU OFTEN SEE ONCE THE CLEARANCE HAS BEEN DELIVERED, YOU OFTEN SEE TWO TO FIVE SECONDS TIME BEFORE THE AIRCRAFT IS MAKING ITS MANEUVER TO AVOID A COLLISION. IF YOU GET TO EGBWS, I DON'T KNOW THE LITERATURE WELL ENOUGH IN THAT AREA. I DON'T KNOW IF ANYONE HAS DONE A STUDY TO SEE HOW QUICKLY PEOPLE RESPOND.

>> IN RESPONSE TO WHAT YOU SAID ABOUT THE EGPWS, ASSISTANCE INDICATED THAT IF THEY HAD HAD THIS IN ADVANCE, THAT THE WARNING WOULD HAVE OCCURRED 6.5 SECONDS SOONER THAN WHEN THEY GOT IT. AND IF THE GROOM HAD PERFORMED THE MANEUVER, THEY WOULD HAVE HAD ABOUT 2.4 SECONDS TO INITIATE THAT MANEUVER AFTER RECEIVING THAT ALERT. IS 2.4 SECONDS ADEQUATE TIME TO RESPOND?

>> MAYBE, MAYBE NOT. ON THE MAYBE NOT SIDE, IF YOU LOOK AT SOME OF THE OTHER LITERATURE, THAT IS NOT MUCH TIME FOR PEOPLE TO REACT AND RESPOND. ON THE OTHER HAND, IF ALL YOU NEEDED WAS A 100 FOOT SPAN, OR ALL YOU NEEDED WAS 10 FEET, THAT LEAD TIME, THAT WARNING TIME MIGHT BE ADVANTAGEOUS.

>> WHAT RESEARCH HAS BEEN DONE TO REDUCE THE NUMBER OF APPROACH AND LANDING ACCIDENTS? CLICK THERE HAS BEEN QUITE A BIT DONE, AND --

>> THERE HAS BEEN QUITE A BIT DONE, AND SOME OF IT IS RESEARCH AND SOME OF IT IS IMPLEMENTATION. THE CAPTAIN MENTION THIS MORNING THE FOUNDATION FLIGHT SAFETY STUDY THAT OCCURRED BACK IN THE 1990'S, WHICH I THINK IS FUNDAMENTAL TO THIS. YOU CAN SEE THAT HE HAD A VERY RARE TYPE OF NON-PRECISION APPROACH THAT WAS ACCOUNTING FOR VERY MUCH AN OVERREPRESENTATION OF APPROACH AND LANDING ACCIDENTS. THERE WAS A GREAT DEAL OF DISCUSSION ABOUT WHAT WAS INVOLVED IN THOSE ACCIDENT, AND SINCE THAT TIME YOU HAVE SEEN RESEARCH, SHOULD TRY TO DOCUMENT ALTERNATIVE PROCEDURES. YOU HAVE SEEN THE FAA, THE MANUFACTURERS, THE AIRLINES COME TOGETHER THROUGH CAST AND DEVELOP THE KINDS OF APPROACHES THAT WE HAVE SEEN PUT IN PLACE. WE HAVE GONE FROM A TIME WHEN AT THE TIME OF THE FLIGHT SAFETY FOUNDATION STUDY, VIRTUALLY EVERY NON-PRECISION APPROACH WAS DIED AND DRIVE -- AND I'VE AND DRIVE -- DIVE AND DRIVE, AND THERE WERE RISKS WITH THAT. THERE HAS BEEN BOTH RESEARCH AND A TREMENDOUS AMOUNT OF MOVEMENT IN THIS INDUSTRY TO MOVE TOWARD A CONSTANT DISSENT APPROACH.

>> THANK YOU. I WOULD LIKE TO ADDRESS MR. BURKE. IF YOU COULD BRIEFLY EXPLAIN THE NEW TRAINING RULES FOR PART 121 OPERATORS.

>> A LARGE PORTION OF THE ROLE IS FOCUSED ON A STALL AND UPSET, AND PILOT MONITORING IS A LARGE COMPONENT OF THAT. AND THE FOURTH LARGEST FROM -- FOURTH LARGEST COMPONENT IS REMEDIAL TRAINING PROGRAMS, WE MAKE THE MANDATORY FOR 121.

>> EXPLAIN THOSE, THE NEW RULES FOR PILOT MONITORING TRAINING. WHAT IS THE EXPECTATION?

>> YOU CAN SEE OVER THE EVOLUTION OF TIME WE HAVE INCREASED OUR GUIDANCE ON PILOT MONITORING THROUGH THE S&P ADVISORY CIRCLE, OR THE CRM ADVISORY CIRCLE. THIS IS THE NEXT STEP IN ITS EVOLUTION. ONE IS A REQUIREMENT FOR PILOTS TO MONITOR AND THEY ARE NOT FLYING THE AIRCRAFT. AND THE SECOND IS FOR AIR CARRIERS TO INCORPORATE PILOT MONITORING TRAINING INTO THEIR SCENARIOS.

>> DR. CHIDESTER, IN ORDER TO TRAIN FOR PILOT MONITORING, IS IT ENOUGH TO INCLUDE IT IN THIS? DO WE NEED CLASSROOM TRAINING? IS SIMULATOR TRAINING ENOUGH?

>> I THINK YOU WANT TO SEE BOTH. THE CONCEPTS EXPLAINED IN THE CLASSROOM ENVIRONMENT EXPLAIN WHAT WE MEAN BY MONITORING. THE STANDARD OF PROCEDURES THAT WE PUT IN PLACE THAT EMPHASIZE WHAT NEEDS TO BE MONITORED AND WHEN IT DOES NEED TO BE MONITORED, WHEN YOU HAVE THOSE THINGS THAT ARE NOT PROCEDURAL EYES -- PROCEDURALIZED, THEN THOSE EXPECTATIONS ARE RAISED TO THE CAPTAIN OR THE PRIVATE FLYING. AND YOU WOULD LIKE TO SEE THOSE IN FEEDBACK OCCURRING IN THE SIMULATION. AND ON A LARGER SCALE, YOU WOULD LIKE TO SEE FEEDBACK ON THAT THROUGH THE DATA THAT IS COLLECTED IN THE TRAINING ENVIRONMENT TO THE EXTENT THAT YOU CAN.

>> CAPTAIN SNYDER, THANK YOU FOR BEING HERE TODAY. WHAT IS UPS DOING TO MITIGATE THE EFFECTS OF FATIGUE?

>> WHAT DO WE TRAIN TO MITIGATE THE EFFECTS OF FATIGUE? WE HAVE PUBLISHED AN AIR CREW ALERTNESS GUIDE IN OUR FOM AND I BELIEVE THAT IS EXHIBIT 14 F IF YOU WOULD LIKE TO BRING IT UP. IT WAS WRITTEN IN COLLABORATION WITH THE NATIONAL FATIGUE SCIENTIST, DR. STEVEN HIRSCH. IT CONTAINS BEST PRACTICES BEFORE GOING ON THE ROAD. IT PERVADES -- IT PROVIDES BEST PRACTICES WHILE ON DUTY STOP IT PROVIDES BEST PRACTICES, BEST TIPS, AND BACKWARD -- BEST RECOMMENDATIONS FOR LAYOVER SLEEP. IT IS WRITTEN VERY WELL AND IS VERY AIR CREW FRIENDLY. WE DO PROVIDE WRITTEN GUIDANCE FOR OUR AIR CREW.

>> AND SPECIFICALLY TRAINING, WHAT SORT OF TRAINING DO PILOTS RECEIVE?

>> AS PARKER -- CAPTAIN PARKER ALLUDED TO, WHEN A PILOT FIRST COMES ON THE PROPERTY, WE HAVE A BASIC IN DUCK CRM. THERE IS A STANDALONE FATIGUE MODULE THAT WAS DEVELOPED ON THE FOUNDATIONS THAT WERE DEVELOPED AT NASA AMES. WHEN THEY COME BACK TO -- 418, 16 MONTHS FOR THE TO-DAY CRM CLASS -- FOR THE TWO-DAY CLASS, THERE IS ANOTHER STANDALONE MODULE FOR FATIGUE AND COUNTERMEASURES AND THOSE TYPES OF THINGS ARE DISCUSSED AGAIN IN AN OPEN FORUM, A CLASSROOM SETTING. IN ADDITION, OUR CREWS GET ANNUAL TRAINING FOR FATIGUE AS A PART OF THAT. IT WAS INCLUDED IN THE 20 12TH ANNUAL -- IN THE 2012 ANNUAL CREW TRAINING. IT WAS INCLUDED AGAIN IN THE 2013 TRAINING AND WILL BE INCLUDED AGAIN IN THE 2014 TRAINING. IN ADDITION, WE PROVIDE ANNUAL TRAINING FOR OUR -- NOT ONLY OUR AIR CREW, BUT OUR DISPATCHERS AND SCHEDULERS AND OUR SENIOR MANAGEMENT LEADERSHIP SO THAT EVERYONE IS ON THE SAME PAGE.

>> PLEASE DESCRIBE UPS'S FITNESS FOR DUTY POLICY.

>> WE HAVE A FITNESS FOR DUTY POLICY THAT IS PUBLISHED IN OUR FOM. YOU HAVE A

NICE EXCERPT OF IT IN 14 A, PAGE 12, WHERE IS DISTINCTLY SUMS IT UP. IN ESSENCE, IT STATES THAT A CREW MEMBER WILL REPORT FOR DUTY -- REPORT FIT FOR DUTY. WE GO AS FAR AS TO DESCRIBE CERTAIN SITUATIONS THAT WOULD MAKE YOU NOT FIT FOR DUTY -- ILLNESS, CERTAIN SCUBA DIVING, CERTAIN TIMES OF GIVING BLOOD, FATIGUE IS SPECIFICALLY MENTIONED AS SOMETHING THAT COULD MAKE YOU NOT FIT FOR DUTY. WE HAVE DESCRIBED THAT IN OUR FOM. WE ALSO PUT IN OUR FOM OUR FATIGUE RISK MANAGEMENT PLAN, OR FRMP. AND THAT IS IN 14 E, I BELIEVE. AND WE THINK THAT THE FRMP IS SO IMPORTANT WE HAVE INCLUDED EXCERPTS FROM THIS IN THE ANNUAL TRAINING FOR AIR CREW MEMBERS, BECAUSE IF YOU CAN BRING IT UP TO PAGE THREE, I THINK IT IS -- OR MAYBE IT IS PAGE TWO? THERE ARE A COUPLE OF IMPORTANT ASPECTS OF IT. IS THAT 14 E? AND HOPING THAT IS 14 E -- I DON'T THINK THAT IS 14 E. SCROLL DOWN, PLEASE. WE DON'T HAVE THAT PULLED UP. 14 E, THE FRMP. ANYWAY, WE TALK ABOUT THE SAFETY CULTURE IN THE FRMOP AND WE SPECIFICALLY DISCUSS OUR COMMITMENT TO A PROACTIVE STRATEGY AND WE STATE THE FACT THAT OUR FATIGUE PROGRAM IS NONPUNITIVE. WE DISCUSSED THE FACT THAT WE RECOGNIZE ERRORS AND WE SHARE INFORMATION THAT THERE WILL BE UPPER MANAGEMENT PARTICIPATION AND WE GO AS FAR AS TO TALK ABOUT THE FACT THAT IT IS A SHARED RESPONSIBILITY BETWEEN THE COMPANY AND THE CREW MEMBER, THAT FITNESS FOR DUTY IS A SHARED RESPONSE ABILITY. THAT IS, IN FACT, -- THE FRMP IS IN OUR FOM. I HAVE COVERED THOSE POINTS UNDER THE SAFETY CULTURE, AND THE FACT THAT WE TALK ABOUT THE JOINT RESPONSIBILITY WITHIN THE COMPANY FOR THE FITNESS FOR DUTY PART OF IT.

>> EXPLAIN MORE ABOUT THE NONPUNITIVE PART OF THE FRMP.

>> SURE. IF A CREW MEMBER FEELS HE IS FATIGUE, HE CAN CALL A SCHEDULER AT ANY TIME AND HE IS IMMEDIATELY AND WITHOUT QUESTION REMOVED FROM A FLIGHT STATUS AND ALLOW TO REST. THE FLIGHT SCHEDULE CAN ASK -- SCHEDULER CAN ASK THREE QUESTIONS. I CAN UNDERSTAND -- I UNDERSTAND YOU ARE UNFIT FOR TO BE -- FOR DUTY BY FATIGUE. THAT IS THE FIRST QUESTION. THE SECOND RUSSIAN IS, IS THERE ANYTHING WE NEED TO KNOW FOR THE NEXT CREW MEMBER OWING INTO THAT SITUATION, SUCH AS A HOTEL OR SOMETHING LIKE THAT. AND THE NEXT IS WHEN THEY THINK THEY WILL BE FIT FOR DUTY ON THEIR SCHEDULE.

>> DOES I(PA CARE TO COMMENT ON THE FIT FOR DUTY SYSTEM?

>> YES, I DO. THE CREW SCHEDULE -- THE CREW MEMBER CAN REMOVE THEMSELVES BASE UNFIT FOR DUTY. AND THE CREW SCHEDULER CANNOT CHALLENGE. HOWEVER, WHETHER THE POLICY IS PUNITIVE OR NOT PUNITIVE, I WOULD SAY THE CREW FORCE WOULD VIEW IT AS A PUNITIVE SYSTEM IN TERMS OF THE FACT THAT IF THE FATIGUE CALL IS DEEMED TO BE -- I DON'T WANT TO USE THE WORD NOT LEGITIMATE, BUT SICK BANK DEBIT. DEBIT OF THE SICK BANK CAN REASON -- CAN OCCUR AS A RESULT OF FATIGUE. IT IS NOT ENTIRELY A NONPUNITIVE SYSTEM.

>> MAY I COMMENT A LITTLE BIT MORE AND FARTHER ON THAT? SO THAT THE BOARD UNDERSTANDS HOW WE OPERATE, OUR CREW MEMBERS OPERATE ON A 13 PAY. -- 13 PAYPERIOD ANNUAL SCHEDULE. THEIR PAY IS NEVER AFFECTED. IN THE SMALL PERCENTAGE OF TIME WHERE IT IS DEALING WITH THE CREW MEMBER TO BE HELD ACCOUNTABLE, THE CREW MEMBERS SICK LEAVE ACCOUNTS CAN, IN FACT, CAN BE USED AS YOU WOULD A SICK DAY. THE SICK LEAVE ACCOUNT IS SET UP IN SUCH A WAY -- IT IS A BENEFIT FOR THE CREW MEMBER. THE CREW MEMBER HAS THE CURRENT PAY. -- THE

CURRENT PAYPERIOD HE IS IN AND TWO ADDITIONAL PAYPERIODS.

>> THANK YOU. I HAVE JUST ASKED THEM TO PULL UP THE NUMBER OF SICK CALLS -- THE SUMMARY OF THE NUMBER OF SICK CALLS THAT UPS RECEIVES. COULD YOU EXPLAIN THE SLIGHT GAP OH -- OF THESE SLIDES?

>> THIS IS OUR 2013 SYSTEM FATIGUE -- FATIGUE SYSTEM. WE HAVE A VERY PROFESSIONAL WORKFORCE. OUR PILOTS FLEW APPROXIMATELY 120 3000 FLIGHT INTO WHEN HE 13 -- IN 2013 AND WE HAD ONLY 130 EIGHT SICK CALLS, LESS THAN 1/10 OF ONE PERCENT. THE DEBIT CONNOTATION THAT YOU SEE UP THERE REFERS TO THE USAGE OF THE SICK BANK, THE SICK LEAVE ACCOUNT AS A SICK DAY. IN 96 OF THOSE CASES EITHER THROUGH THE COMPANY OR THE FATIGUE WORKING GROUP THAT I AM CHAIRMAN OF, WE DETERMINE IF THE CREW MEMBER WAS EVERY BIT IN HIS RIGHT TO MAKE THAT FATIGUE CALL. IN 42 OF THOSE CASES, THE CREW MEMBER HAD TO USE HIS SICK LEAVE ACCOUNT AS HE WOULD A SICK DAY. IN OTHER WORDS, WE HELD THE CREW MEMBER ACCOUNTABLE FOR THE FATIGUE CALL. IT WAS SOMETHING WE DEEMED WITHIN THE WITH -- WITHIN THE FATIGUE WORKING GROUP, WHICH OFFICER ESPOSITO IS A PART OF SOME A THAT THE CREW MEMBER COULD HAVE MANAGED HIS REST BETTER. AND I SHOULD NOTE THAT OF THOSE 42, 12 OF THOSE CALLS WERE AUTOMATICALLY ACCOUNTED AS SICK DAYS, BECAUSE THE CREW MEMBER FAIL TO GO THROUGH THE CONTRACTUALLY MANDATED PROCESS FOR A FATIGUE CALL. TO THINK THAT THIS PROCESS IS PUNITIVE IN ANY WAY IS A MISNOMER.

>> MS. ESPOSITO, HOW DOES I PA COUNCIL IT PILOTS WHO ARE DEBITED FOR MAKING A FATIGUE CALL ON HOW TO MANAGE THEIR OFF-DUTY TIME AND BE FIT FOR DUTY?

>> FIRST OF ALL, THE I PA SUPPORTS THE CREW MEMBERS DECISION TO CALL IN FOR FATIGUE. THEY ARE THE BEST PERSON TO DETERMINE THEIR FITNESS FOR DUTY. WE ARE NOT. WE ARE ANALYZING THE CALL AFTER THE FACT.

>> CAN YOU PULL THE MICROPHONE A BIT CLOSER?

>> AS JOHN ALLUDED TO COME OUR CREW MEMBERS ARE VERY PROFESSIONAL AND THEY SHOW UP FIT FOR DUTY. I DO WANT TO MAKE ONE MORE COMMENT, IF I MAY, REGARDING THE PUNITIVE ASPECT OF IT. WHEN A CREW MEMBER CALLS IN FATIGUE, THE FATIGUE CALL IS RESEARCH WITH HIS ATTENDANCE HISTORY. HE DOESN'T RECEIVE A LETTER IN HIS FILE, BUT THERE WILL BE AN EXCEPTION MADE IN HIS PERMANENT RECORD. IF YOU THINK ABOUT A SYSTEM LIKE ASAP FOR EXAMPLE WHERE A PILOT HAS AN ALTITUDE DEVIATION, THAT PROCESS IS COMPLETELY ISOLATED AND KEPT AWAY FROM THEIR ATTENDANCE RECORD. WE HAVE AN ISSUE WITH THAT IN TERMS OF IT BEING -- CREW MEMBERS VIEW IT AS PUNITIVE. THEY GET DINGED FOR IT.

>> I MAYBE DID NOT UNDERSTAND YOUR ANSWER IF YOU ANSWERED MY QUESTION. WHAT DOES IPA DO TO COUNSEL IT PILOTS TO MAKE THESE SUPPORT CALLS? IF THEY HAVE CALLED IN FATIGUE AND IT WAS DETERMINED NOT LEGITIMATE WHERE THEY HAVE NOW DEBITED THEIR SICK BANK, WHAT DOES IPA DO TO GIVE GUIDANCE TO IT PILOTS TO MAKE SURE THIS IS NOT GOING TO HAPPEN AGAIN?

>> WE CONSIDER EVERY FATIGUE CALL TO BE LEGITIMATE. A ARE THE ONLY ONES THAT CAN MAKE THAT DETERMINATION. THE FATIGUE WORKING GROUP, WE WORK IN A VERY LIMITED RANGE, AND WE ARE BOUND BY THE CONTRACT. JUST BECAUSE SOMETHING IS

CONTRACTUAL, OR FARC TO -- OR FAR LEGAL, IT MAY CONTRIBUTE TO FATIGUE. WE ARE LOOKING FOR CIRCUMSTANCES BEYOND THE PILOT CONTROL THAT ARE SOMETIMES JUST VERY CHALLENGING DAYS AND THE CREW MEMBER CALLS AND FATIGUE. IT IS WITHIN THE BOUNDS OF THE CONTRACT. THESE ARE NOT REAL BLACK AND WHITE DECISIONS. THEY HAVE TO BE DEBITED FROM THE SICK BANK. WE JUST COUNSEL THEM TO BE SURE THEY ARE FIT FOR DUTY.

>> AND WHAT DOES THAT COUNSELING INCLUDE?

>> YOU ARE A PROFESSIONAL. DO THE BEST YOU CAN TO BE RESTED FOR YOUR IT DUTY TIME FRAME -- FOR YOUR DUTY TIME FRAME.

>> CAPTAIN SNYDER OR MS. ESPOSITO, HOW DOES UPS ENSURE THAT ITS PILOTS UNDERSTAND THE FATIGUE POLICY?

>> IN 2012 WAS WHEN THE FRMP WAS PUBLISHED. THAT IS WHEN WE WERE REQUIRED TO HAVE ONE. WE ARE TALKING PRETTY RECENT HISTORY WITH THE FATIGUE PROGRAM. IT ONLY GOES BACK THREE YEARS. IN THE STATE THAT IT IS IN RIGHT NOW. WE STARTED OUT IN 2012 DURING CURRENT TRAINING IN A CLASSROOM SETTING SHOWING OUR CREW MEMBERS THE FRMP. IN ADDITION, WE PUBLISHED A MUST-READ BULLETIN FOR OUR CREW MEMBERS THAT WENT OUT AT THE SAME TIME. ALL CREW MEMBERS KNEW THAT THIS WAS, IN FACT, A NEW POLICY. IN 2013, WE INCLUDED THE FRMP AS PART OF THE ANNUAL RECURRING TRAINING. I HAVE A COPY OF IT HERE IF YOU WOULD LIKE TO SEE IT AT A LATER TIME. IN 2014, GOING BACK TO THE CLASSROOM STYLE DISCUSSION IN DISCUSSING FATIGUE.

>> AND MS. ESPOSITO, WHAT STEPS IS IPA TAKING TO ASSIST THE PILOTS BEFORE THEY MAKE THE FATIGUE CALL?

>> AGAIN, ALL OF THE PILOTS ARE PROFESSIONALS. IN OUR COLLECTIVE BARGAINING AGREEMENT, WE HAVE A VERY LIMITED SECTION ON THE CONTRACT REGARDING STEPS TAKEN FOR A FATIGUE CALL. OUR BASIC DUTY WHEN WE ADDRESS THE FATIGUE CALL, WE ARE NOT INVOLVED IN ROUTE-CAUSE ANALYSIS -- ROUTE-CAUSE ANALYSIS -- ROOT CAUSE ANALYSIS. WE DO NOT HAVE THE AUTHORITY AS THE FATIGUE WORKING GROUP TO GO BACK AND CHANGE THE TRIP. WE DO NOT HAVE THE AUTHORITY TO GO BACK AND CHANGE THAT SCHEDULING PRACTICE.

>> I UNDERSTAND THAT. WHAT I'M ASKING IS IPA AS A WHOLE, WHAT GUIDANCE DO THEY GIVE THEIR PILOTS BE ON THE MANUAL TO ENSURE THAT THEY ARE FIT FOR DUTY? DO YOU GIVE ANY ADDITIONAL GUIDANCE? I UNDERSTAND YOU MAY NOT BE ABLE TO DO MORE THAN CONTRACTUALLY OBLIGATED, BUT THE ORGANIZATION AS A WHOLE.

>> FROM TIME TO TIME WE PUBLISH NEWSLETTERS ON BEING FIT FOR DUTY AND IF THEY ARE NOT FIT FOR DUTY, THEY SHOULD CALL IN FOR FATIGUE.

>> MS. ESPOSITO, YOU HAD A CHANCE TO REVIEW YESTERDAY THE MOBILE DEVICES ACTUAL REPORT IN WHICH THERE WERE EXCERPTS OF TEXT MESSAGES FROM THE FIRST OFFICER INDICATING THAT SHE FELL ASLEEP ON SEVERAL FLIGHTS AND THAT BEFORE THE ACCIDENT. WHAT I'M INTERESTED IN IS, IS THIS UNUSUAL FOR PILOTS TO FOLLOW SLEEP DURING A FLIGHT?

>> NAPPING DURING THE -- DURING A FLIGHT IS NOT SANCTIONED BY THE FAA. IT IS NOT LEGAL TO DO THAT. WHAT I READ FROM THAT TRANSCRIPT COME A THE FIRST OFFICER WAS EXTREMELY TIRED. SHE TRIED TO GET SOME SLEEP DURING THE DAYTIME. DAYTIME SLEEPING IS VERY DIFFICULT WHEN YOU ARE OPERATING ON THE BACKSIDE OF THE CLOCK. THE TYPE OF SLEEP THAT YOU GET DURING THE DAYTIME IS NOT ALWAYS RESTORATIVE. IT SOUNDED LIKE SHE HAD DIFFICULTY SLEEPING DURING THE DAY AND NODDED OFF.

>> WOULD YOU EXPECT A PILOT WHO NOTICED THAT THEY HAVE FALLEN ASLEEP IN FLIGHT TO CALL IN FATIGUE?

>> WHAT I WOULD SAY TO THAT IS THAT THE CREW MAY HAVE THOUGHT SHE WAS IN A BETTER POSITION TO OPERATE THAT FLIGHT. ONE OF THE UNIQUE THINGS ABOUT FATIGUE IS THE FATIGUE PERSON IS USUALLY THE WORST PERSON TO ASSESS THEIR FITNESS FOR DUTY AT THE TIME. THEY OFTEN THINK THEY ARE IN BETTER SHAPE THAN THEY ARE TO OPERATE THAT FLIGHT. I'VE TALKED TO CREW MEMBERS FROM TIME TO TIME ON THE PHONE, OR FACE-TO-FACE. WE HAVE HAD VERY CANDID DISCUSSIONS REGARDING FATIGUE, AND A LOT OF TIMES WHAT I WILL HEAR IS, I DIDN'T KNOW HOW TIRED I WAS UNTIL I GOT TO THE HOTEL. OR I DID NOT KNOW HOW TIRED I WAS UNTIL I WAS ON THE HOTEL VAN. IF I HAD TO FLY THAT TRIP AGAIN, I WOULD CALL IN FATIGUED.

>> THE FIRST OFFICER HAD 60 HOURS OFF IN SAN ANTONIO TWO DAYS PRIOR TO THE ACCIDENT. IS SIX TO TWO HOURS CONSIDERED ADEQUATE -- IS 62 HOURS CONSIDERED ADEQUATE TIME TO BE PREPARED BEFORE COMING ON DUTY?

>> I WOULD SAY, YES, IT WAS.

>> HAVE YOU EVER CALLED IN FATIGUED?

>> I HAVE NOT.

>> CAPTAIN SNYDER?

>> I HAVE NOT. BUT CAPTAIN SNYDER, WHAT TOOLS DOES UPS USE TO ENSURE THAT ITS SCHEDULES ARE NOT CONDUCIVE TO FATIGUE?

>> AS YOU KNOW, WE OPERATE IN PART 121. WE ARE STUCK -- WE ARE RESTRICTED BY THE COLLECTIVE TARGETING AGREEMENT, WHICH HAS AN ADDITIONAL LAYER OF SAFETY AND PROTECTION FOR OUR CREW MEMBERS. IN THE COLLECTIVE BARGAINING AGREEMENT, CLOSE TO 100 PAGES DEAL WITH THE OPERATION OF THE FLIGHT CREWS. IT IS ALMOST ONE THIRD OF THE ENTIRE AGREEMENT. WHILE WE DO NOT USE SPECIFIC TOOLS, WE DO USE RULES THAT WERE ESTABLISHED AT THE TIME THAT COLLECTIVE BARGAINING AGREEMENT WAS SIGNED AND ARE BASED ON MANY OF THE CONCEPTS AND RESEARCH THAT CAME OUT OF THE BEST PRACTICES AT THE TIME.

>> EITHER MS. ESPOSITO OR CAPTAIN SNYDER, HAVE YOU LOOKED AT THE CREW SCHEDULE UP TO THE TIME OF THE ACCIDENT?

>> STATE YOUR QUESTION AGAIN.

>> I'M INTERESTED TO KNOW IF YOU LOOKED AT THE CREW SCHEDULE AT THE TIME OF THE ACCIDENT.

>> YES, AFTERWARD AS PART OF OUR FATIGUE SAFETY ACTION GROUP, WHICH IS ANOTHER COMPONENT OF OUR FATIGUE PROGRAM, WE ARE MANDATED TO LOOK AT THE SCHEDULE FOR FATIGUE. SO, YES, I DID.

>> DID IT MEET THE REQUIREMENTS THAT ARE LISTED IN THE CONTRACT?

>> YES, IT DID.

>> OF DR. CHIDESTER, YOU HAVE HEARD A LOT ABOUT WHAT THE CREWS DID OR DID NOT DO ON THE FLIGHT DECK. FROM A HUMAN FACTORS PERSPECTIVE, WHAT FACTORS DO YOU THINK WERE WORKING AGAINST THE SCREW? -- AGAINST THIS CREW?

>> I WOULD TAKE A MANAGEMENT APPROACH TO LOOKING AT THE FIGHT THEY WERE FINE. GOING INTO BIRMINGHAM, THEY WERE PLANNING TO FLY A NON-PRECISION APPROACH. WE KNOW STATISTICALLY FROM THE DISCUSSIONS THAT THEY ARE THEY HAD THAT IT PRESENT A RISK. UPS HAS PUT IN PLACE PROCEDURES FOR THE NON-PRECISION APPROACH THAT ARE CONSISTENT WITH THE RECOMMENDATIONS AND FAA GUIDANCE. AND WE SAW THE CREW PREPARE FOR THAT. THERE'S A THREAT THAT IS PRESENT AND YOU SEE THE ACTION THAT THEY TAKE TO PREPARE FOR THAT. THE FACT THAT ON THIS GIVEN DAY THE WEATHER IS DOWN NEAR MINIMAL AND UNFORTUNATELY, THEY WERE NOT AWARE OF THAT. THIS IS A REAL NO KIDDING FLIGHT APPROACH TO PRECISION ALTITUDE. THE WEATHER INFORMATION THAT THEY HAD LED THEM TO BELIEVE THEY WOULD BREAK OUT 1000 FEET ABOVE THE FIELD. THERE IS A THREAT, AND THEY SHOULD PREPARE FOR IT REGARDLESS OF WHAT THE CEILING IS. AND THERE ARE THINGS THAT ARE UNIQUE TO THIS RUNWAY AND THE APPROACH, AND THAT INVOLVES THE TERRAIN AND THE VISUAL DISSENT AREA OF THE APPROACH. -- THE VISUAL DESCENT OF THE APPROACH AREA. YOU WOULD KNOW ABOUT THAT I FIND IT BEFORE, OR WORD-OF-MOUTH BY OTHER PILOTS, OR THE BRIEFING FOR THAT, WHICH UPS WAS NOT REQUIRED TO PROVIDE THOSE PILOTS IN THIS CASE.

>> DR. CHIDESTER, I'M GOING TO STOP YOU. I KNOW THIS IS A BIT OF THE SET UP ON YOUR END. I THINK WE WANT TO BE CAUTIOUS ABOUT TRYING TO DO AN ANALYSIS ABOUT THIS PARTICULAR CREW OR THIS PARTICULAR FLIGHT. MAYBE IF WE REPHRASE THE QUESTION. MAKE IT A LITTLE BIT MORE GENERIC AND TALK ABOUT THE THREATS THAT ANY FLIGHT CREW COULD FACE. I KNOW WE SET YOU UP A LITTLE BIT THERE, BUT WE ARE TRYING TO STAY ON THE SIDE OF ANALYSIS AND KEEP THE FACTS. MAYBE SHARING YOUR OPINION ABOUT RESEARCH THAT HAS BEEN DONE AND FACT THAT YOU KNOW ABOUT DIFFERENT RISKS.

>> I GUESS WE FOCUS ON THE RARITY OF THIS TYPE OF MANEUVER, WHICH WE HAVE ARTIE TALKED ABOUT. WE WOULD TALK ABOUT FITNESS, THE REST, THOSE ARE ISSUES TO BRING UP. AND THE REST IS THE GO AROUND. IF YOU PLAN FOR A GO AROUND, THAT IS A SAFEWAY OF GETTING AWAY FROM -- THAT IS A SAFE WAY OF GETTING AROUND A NOT STABLE APPROACH.

>> INC. YOU VERY MUCH -- THANK YOU VERY MUCH. CAPTAIN LAWRENCE HAS SOME

QUESTIONS.

>> THANK YOU. JUST A COUPLE OF QUESTIONS. MS. ESPOSITO, DID THE PILOTS AT UPS BUILD THEIR OWN SCHEDULES?

>> SAY THAT AGAIN?

>> DO THE PILOTS AT UPS BID THEIR OWN SCHEDULES?

>> YES, THEY BID THEIR OWN SCHEDULES.

>> IS THERE AN OPPORTUNITY FOR A PILOT TO TRIP IMPROVE IF THEY GET A SCHEDULE THAT THEY WOULD LIKE TO IMPROVE ON?

>> WE HAVE A PROCESS, BUT IT IS A VERY RESTRICTIVE PROCESS AND IT DEPENDS ON WHETHER THERE IS TIME AVAILABLE FOR THEM TO MAKE THE TRADE. WE CANNOT DROP A TRIP IF SOMEBODY WANTS TO ELIMINATE A TRIP. THEY WOULD HAVE TO GET PERSONAL LEAVE OF ABSENCE FROM THE CHIEF PILOT'S OFFICE.

>> ON A MONTHLY BASIS, HOW FAR OUT IN ADVANCE OF THE PILOT KNOW WHAT THEIR SCHEDULE WILL BE?

>> OUR BIDDING TIME FRAMES ARE TO -- 28 DAYS, TO SET, AND SO IT'S ROUGHLY 60 DAYS.

>> WE HEARD ON THIS MORNING'S PANEL A BIT ABOUT THE EXPECTATIONS OF UPS, WHAT THEY EXPECT FROM THE PILOT AS THEY GET TO THE APPROACH. THE EXPECTATION WE HEARD FROM TWO PILOTS ON THAT PANEL WERE THAT THEY SHOULD ABANDON THE APPROACH. CAPTAIN PARKER MENTIONED THE SAME THING, THAT IT WAS A NICE VACATION AS WELL. WE ALSO HEARD THAT THERE WERE VERY SPECIFIC FOR CEDARS THAT PILOTS ARE REQUIRED TO FLIGHT -- SPECIFIC PROCEDURES THAT PILOTS ARE REQUIRED TO FLY. FOR INSTANCE, THEY HAVE TO BE AT 1000 FEET. THEY HAVE TO BE STABLE. THERE IS A WHOLE CRITERIA IN THEIR STANDARD OPERATING PROCEDURES, WHAT NEEDS TO HAPPEN AT THAT ALTITUDE. HOWEVER, WE BEEN LISTENING TO EXPECTATIONS AS FAR AS WHAT HAPPENS IF THE APPROACH DOES NOT MATERIALIZE. MY QUESTION IS, WOULD YOU GET A MORE DESIRED RESULT OUT OF A PILOT IF THEY ARE TRYING TO COMPLY WITH A PROCEDURE AS OPPOSED TO AN EXPECTATION?

>> THE WAY YOU PHRASED YOUR QUESTION, THE ANSWER IS YES. THERE ARE THINGS THAT CAN BE PROCEDURAL READILY AND THINGS THAT CANNOT. THERE ARE THINGS YOU CAN ANTICIPATE AND THINGS THAT YOU DO NOT AS YOU WRITE PROCEDURES. I WOULD WONDER WHETHER ANYONE ANTICIPATED THE PARTICULAR CHAIN OF EVENTS HERE AND WOULD HAVE THOUGHT TO PROCEDURALIZE IT. I WOULD THINK INSTEAD THE AIRLINE INDUSTRY WOULD HAVE APPROACH CRITERIA, SO YOU HAVE IT IN PLACE TO PROTECT THE CREW FROM ANY CONSEQUENCES OF THAT DISRUPTION AND CONFUSION.

>> I DO NOT HAVE ANY MORE QUESTIONS.

>> MADAM CHAIRMAN, THAT CAN PUTS THE TECH HANDLE QUESTIONS AT THIS TIME. -- THE TECH PANEL QUESTIONS AT THIS TIME.

>> DO YOU HAVE A QUESTION?

>> THANK YOU, MADAM CHAIRMAN. JUST A QUICK QUESTION TO CAPTAIN PARKER. GOING BACK TO CRN IN GENERAL -- CRM IN GENERAL, DOES UPS KEEP RECORDS OR KEEP TRACK OF CRM ASSESSMENTS, OR DOES IT WORK ON ASSESSMENTS AFTER SIMULATED TRAINING? X --

>> THAT IS A GOOD QUESTION. AGAIN, I MENTIONED EARLIER THAT WE DO GRADE AND TRACK THE CRM. ONE PART OF OUR TRAINING IS THAT WE DO WHAT WE CALL A FACILITATED THE BRIEF -- DEBRIEF, AND IT IS DIVIDED BY THE INSTRUCTOR OR EVALUATED -- EVALUATOR THAT HAS A CHANCE TO COME BACK IN CRM-WISE AND DISCUSS HOW THAT TRAINING EVENT WENT, ALL OF THE GOOD THINGS THAT MAY HAVE HAPPENED, ALL THE THINGS THEY COULD HAVE DONE BETTER. WE USE THE FACILITATED DEBRIEF FOR OUR TRAINING. THAT IS PROBABLY THE ONE THAT STANDS OUT.

>> AND ONE QUICK QUESTION WITH REGARD TO AREA MANAGEMENT. DOES UPS DIVIDE THEIR PILOTS WITH SPECIFIC GUIDELINES TO INCORPORATE MANAGEMENT INTO THEIR OPERATIONAL BRIEFINGS?

>> YES, THEY DO. WE EXPECT OUR PILOTS, WHEN THEY FINISHED TRAINING -- AND DEPENDING ON WHATEVER TRAINING IT IS, EITHER THEIR INITIAL TRAINING OR CONTINUING QUALITY -- THEY HAVE THE FOUNDATION OF OUR MANAGEMENT MODEL. WE WANT THEM TO BE AWARE OF IT, KNOW IT, AND TAKE IT OUT ON THE LINE AND USE IT. WE ALSO HAVE A TOOL -- AND WE KIND OF SHOW THAT TO YOU IN EXHIBIT 20 K. IT TALKS ABOUT THE BIG SIX. THIS IS THE TOOL THAT THEY USE TO TAKE WITH THEM AND WE MAKE IT IN A JET SIZED PORTION THAT THEY CAN TAKE WITH THEM ON A FLIGHT. IT IS A GREAT TOOL THEY USED TO TALK ABOUT THREATS, TALK ABOUT ERRORS, TALK ABOUT HOW YOU CAN PUT DEFENSES UP. IF YOU GO TO THE SECOND PAGE, YOU CAN SEE WHERE WE SPELL OUT HOW WE USE THE DEFENSE MODEL. IT IS THE MODEL THAT WE USE THROUGHOUT OUR TRAINING, AND ALSO USE IN OUR OPERATION.

>> THANK YOU. I HAVE NO FURTHER QUESTIONS.

>> I KNOW EVERYONE IN THE AUDIENCE IS FEELING A LITTLE FATIGUED RIGHT NOW. HANG WITH US. WE'RE GOING TO KEEP GOING AND TRY TO FINISH THIS PANEL. WE'RE GOING TO MOVE TO THE PARTIES FOR QUESTIONS. THIS TIME WE WILL BEGIN WITH IPA .

>> THANK YOU, MADAM CHAIRMAN. MS. ESPOSITO, IT SEEMS LIKE SOME OF THE QUESTIONS THAT CAME ABOUT BOUNCE AROUND THE SUBJECT, BUT I WOULD LIKE YOU TO ADDRESS IT DIRECTLY, PLEASE. THE FRMP THAT UPS HAS MANDATED, IS THE IPA INVOLVED?

>> AS FAR AS THE FRMP, NEITHER THE IPA NOR THE SAFETY COMMITTEE IS AN ACTIVE PARTICIPANT IN THE UPS FRMP.

>> AS FAR AS THE QUESTIONS THAT WE HAVE ALLUDED TO, IS THE IPA INVOLVED IF A PILOT WERE TO CALL IN FATIGUED?

>> WE DO HAVE WORDING IN THE NEGOTIATED CONTRACT THAT LAYS THE GROUNDWORK FOR THE FATIGUE WORKING GROUP, AND THAT IS FOR JOHN AND I WORK ON TOGETHER.

>> AND JUST FOR CLARIFICATION, COULD YOU PLEASE EXPLAIN ONCE AGAIN WHAT THE FATIGUE WORKING GROUP IS AND THE PURPOSE OF IT? X WE WILL REVIEW --

>> WE WILL REVIEW CERTAIN FATIGUE ALL, AND THOSE ARE THE ONES THAT HAVE INITIALLY BEEN RECOMMENDED FOR DEBIT BY THE CHIEF PILOT'S OFFICE. WHAT WE DO IS WE LOOK AT THESE FATIGUED CALLS TO SEE IF THERE WERE CIRCUMSTANCES BEYOND THE CONTROL OF THE FILE IT -- OF THE PILOT THAT LED TO THE PILOT BEING FATIGUED AND NOT FIT FOR DUTY. AND FROM THERE WE WILL EITHER MAKE THE DEBIT OR NO DEBIT HIBERNATION -- DETERMINATION OF THEIR SICK BANK.

>> DOES THE FATIGUE WORKING GROUP HAVE THE AUTHORITY TO GO BACK AND CHANGE A PAIRING THAT RESULTED FROM A FATIGUE CALL?

>> KNOW, WE DO NOT HAVE THE AUTHORITY TO GO AND CHANGE ANY PAIRINGS. WE WORK SPECIFICALLY ON WHETHER OR NOT THE FATIGUE CALL IS DEBITED OR NOT DEBITED. WE CAN MAKE RECOMMENDATIONS, BUT WE HAVE NO AUTHORITY TO GO IN AND MAKE ANY CHANGES.

>> WHAT FLEET AT UPS HAS THE HIGHEST RATE OF FATIGUE CALLS?

>> THE A 300 FLEET AIRBUS IS THE HIGHEST NUMBER OF FATIGUE CALLS WITHIN THE UPS SYSTEM.

>> THANK YOU, MADAM CHAIRMAN.

>> COULD I ADD ONE MORE THING?

>> ABSOLUTELY. BUT THE NUMBER ONE REASON FOR FATIGUE CALLS ON THE AIRBUS RESULTS FROM --

>> THE NUMBER ONE REASON FOR FATIGUE CALLS ON THE AIRBUS RESULTS FROM BID PACKAGE SYSTEM, BEING EXISTING BID TRIPS. QUICK MEANING, TRIPS THAT ARE NOT ALTERED BY THE CREWMEMBER WHATSOEVER --

>> MEANING, TRIPS ARE NOT ALTERED BY THE CREWMEMBER WHATSOEVER.

>> THAT IS CORRECT.

>> I WANT TO CLARIFY WHAT ANSWER SHE GAVE YOU. YOU SAID THE HIGHEST RATE. AS THE RATE IN THE NUMBER THE SAME THING?

>> THAT IS MY FAULT. I SAID THE WRONG THING. SHE IS CORRECT ON NUMBER.

>> IS AT THE HIGHEST RATE ALSO?

>> THE HIGHEST NUMBER OF FATIGUE CALLS COMES FROM THE AIRBUS FLEET.

>> RIGHT TO HIS ORIGINAL QUESTION WAS THE RATE.

>> RIGHT, AND HIS ORIGINAL QUESTION WAS THE RATE. IF THE RATE AND THE NUMBER OF THE SAME, WHAT IS THE HIGHEST RATE?

>> THAT WOULD BE THE AIRBUS. I SEE MR. SNYDER SHAKING HIS HEAD. AS THE DATA DIFFERENT FOR DIFFERENT AIRCRAFT? -- IS THE DATA DIFFERENT FOR DIFFERENT AIRCRAFT?

>> WE DO THAT AT THE FATIGUE SAFETY ACTION GROUP LEVEL LOOK AT RATE. WE HAVE NORMALIZE THE DATA AGAINST A NUMBER OF AIRCREW THAT ARE ACTIVELY BIDDING IN THAT FLEET. WE HAVE NORMALIZE THE DATA SO THAT IT DOES MAKE SOME KIND OF SENSE, SO WE CAN SEE IF WE HAVE A SIGNIFICANT DIFFERENCE IN RATE. SHE IS CORRECT, THE AIRBUS HAS THE HIGHEST NUMBER OF FATIGUE ALSO -- FATIGUE CALLS. HE AIRBUS -- AND I DON'T HAVE THE DATA IN FRONT OF ME AND I CAN PROVIDE IT FOR YOU. WE LOOK AT THAT RATE MONTHLY. THE AIRBUS PROBABLY HAVE THE HIGHEST RATE FOR -- FOR FOUR OUT OF 12 MONTHS. THE REST OF THE TIME IT WAS SPREAD THROUGHOUT THE FLEET THAT YOU SAW PREVIOUSLY.

>> IF WE DON'T ALREADY HAVE THAT UNDERLYING INFORMATION, IF YOU COULD PROVIDE IT FOR THE RECORD THAT WOULD BE HELPFUL.

>> YES, MA'AM.

>> THANKS.

>> CAPTAIN SNYDER, YOU JUST REFERRED TO THE FSAG. IS THE IPA INVOLVED IN THAT?

>> THE IPA IS INVOLVED IN ALL OF THE DATA THAT WE LOOK AT. PART OF THE DATA THAT COMES IN IS THE WRITTEN ACCOUNT FROM THE CREWMEMBER EXPLAINING WHAT, IN FACT, OCCURRED. THE IPA HAS INPUT TO THE FATIGUE SAFETY ACTION GROUP, THROUGH THE FATIGUE WORKING GROUP. MANY TIMES THEY WILL PROVIDE ME WITH INFORMATION THAT THEY LIKE THE FATIGUE SAFETY ACTION GROUP TO TAKE A LOOK AT AND ANALYZE, AND WE RESPOND TO THAT. AS WE DO ALL THE MEMBERS WHO CALL US. WE ALSO GIVE CREWMEMBERS THE ASAP REPORTING SYSTEM. WE HAVE MADE CHANGES TO SCHEDULES BASED ON AIRCREW INPUT AND THE FATIGUE SAFETY ACTION GROUP COMPONENT.

>> SO YOU DO TAKE IPA DATA FOR THE FSAG, BUT THE IPA IS NOT INVOLVED IN THE FSAG. WOULD THAT BE SOMETHING THAT YOU COULD DO IN THE FUTURE TO BE PART OF THE FRONT IN PROCESS -- FRONT AND PROCESS?

>> AS LONG AS WE ARE TALKING ABOUT THE FATIGUE SAFETY ACTION GROUP, YES. THERE ARE SEVERAL COMPONENTS THAT ARE LOOKED AT. ONE IS THE CREWMEMBERS. THAT IS AN IMPORTANT PART OF IT. WE LOOK AT THE SCHEDULE AS IT WAS PLANNED, AS IT WAS FLOWN, TO LOOK FOR ANY PINCH POINT. WE ALSO LOOK FOR A MODELING RULE THAT IS ANOTHER COMPONENT OF THE ANALYSIS OF THE FATIGUE CALL. THE COMPANY TAKES THE RESPONSIBILITY FOR THE RISK ANALYSIS AND THE CHANGES TO THE SCHEDULES THAT NEED TO BE MADE. WHILE YOU ARE CORRECT, THE IPA DOES NOT SIT ON THE FATIGUE SAFETY ACTION GROUP, THEY CERTAINLY HAVE INPUT TO IT AND WE DO ACT ON THEIR INPUT.

>> AND I WILL ASK FOR CLARIFICATION. IN THE HIERARCHY OF THIS FATIGUE RISK

MANAGEMENT PLAN, WHERE DOES THIS FSAG SIT COMPARED TO THE FATIGUE WORKING GROUP?

>> THE FATIGUE SAFETY ACTION GROUP MEETS ONCE A MONTH. THE IRKING GROUP MEETS ONCE A MONTH. AS FOR HE POINTED OUT -- THE WORKING GROUP MEETS ONCE A MONTH. AS WAS POINTED OUT, THE THE ONES WE LOOK AT ARE THOSE THAT THE CHIEF PILOT OFFICE HAS INITIALLY DECIDED THAT THERE IS AIRCREW ACCOUNTABILITY FOR THE FATIGUE CALL. THOSE ARE THE ONES THAT THE FATIGUE WORKING GROUP LOOKS AT. THE TWO GROUPS ARE ACTUALLY PARALLEL. THERE IS NO HIERARCHY OVER ONE OVER THE OTHER.

>> I THINK WE'RE GOING TO NEED TO MOVE ON. IF YOU WANT TO WRAP UP.

>> THANK YOU VERY MUCH, MADAM CHAIR.

>> TW.

>> WE HAVE NO QUESTIONS.

>> AIRBUS.

>> WE HAVE NO QUESTIONS.

>> FAA.

>> WE HAVE NO QUESTIONS.

>> UPS.

>> JUST ONE QUESTION. IT WAS MENTIONED ABOUT THE PILOT EXCEPTION REPORT AND I THINK IT WAS ONLY A MENTION OF FATIGUE ITEMS BEING CAPTIONED -- CAPTURED. COULD YOU EXPAND ON THE TOP SUPPORT OF ITEMS BEING CAPTURED IN IT?

>> THE FIRST ONE THAT THE CAPTAIN OF THE TWO WAS THAT ALL CREWMEMBERS HAVE AN EXCEPTION. IT IS A MANAGEMENT TOOL. WE HAVE INCLUDED IN THE EXCEPTION REPORT EVERYTHING FROM FATIGUE CALLS TO SAY CALLS TO -- SICK CALLS TO TRAINING EVENTS, AND EVEN AT A BOYS, THANK YOU FOR DOING A GOOD JOB. IT IS A MANAGEMENT WILL THAT WE USE. IT IS GOOD MANAGEMENT OF YOUR PEOPLE. IT IS NOT USED AS A PUNITIVE TOOL. IT IS A WAY TO MANAGE THE PEOPLE. MANY OTHER THINGS ARE INCLUDED IN THAT EXCEPTION IN HISTORY THAT WE KEEP ON EACH CREWMEMBER.

>> JUST TO FOLLOW-UP, DOES IT EVER HOPE TO FOLLOW UP ON THAT EXCEPTION REPORT TO FOLLOW-UP ON THE CREWMEMBERS IN ANY WAY?

>> YES, ONE OF THE EARLY THINGS THAT I DO IS TAKE A LOOK BACK THROUGH THE EXCEPTION HISTORY OF A CREW MEMBER AND SEE IF THERE IS AN ISSUE THAT A CREWMEMBER MAY NEED HELP WITH, BECAUSE WE DON'T WANT CREWMEMBERS OUT THERE OPERATING THAT, QUITE TRICKY, HAVE OTHER ISSUES HAPPENING IN THEIR LIVES. IT DOESN'T HAPPEN VERY OFTEN, BUT OCCASIONALLY IT DOES.

>> NUMBER QUESTIONS. MOVE TO BOARD MEMBER SUMWALT.

>> CAPTAIN SNYDER, AS YOU ARE WELL AWARE, F R 17 WENT INTO EFFECT LAST MONTH AND WHEN THE FAA PUBLISHED THAT RULE, IN THE SUMMARY -- IN THE THIRD OR FOURTH LINE OF THE SUMMARY, IT SAYS FATIGUE THREATENS AVIATION SAFETY BECAUSE IT INCREASES THE RISK OF PILOT ERROR THAT COULD LEAD TO AN ACCIDENT. PART 117 HAS A PROVISION FOR VOLUNTARY IMPLEMENTATION. AS I RECALL ON MARCH 1 OF TWO YEARS AGO, THE THEN DOT SECRETARY MET WITH THE EXECUTIVES FROM UPS AND FEDEX TO URGE VOLUNTARY ACCEPTANCE AND COMPLIANCE WITH THAT REGULATION. WHY DID UPS ELECTS NOT TO GO WITH THE VOLUNTARY COMPLIANCE, GIVEN THAT IN THE SUMMARY OF THE RULE IT SAYS FATIGUE THREATENS AVIATION SAFETY BECAUSE IT INCREASES THE RISK OF PILOT ERROR THAT LEADS TO ACCIDENTS?

>> YOU ARE TALKING WAY ABOVE MY PAY LEVEL. BUT WHAT I CAN SHOW YOU -- IF YOU WILL BRING UP 14 A, PAGE 30, I CAN SHOW YOU A COMPARISON BETWEEN 117, ONE HUNDRED 21, AND THE COLLECTIVE BARGAINING AGREEMENT THAT WE CURRENTLY OPERATE UNDER.

>> THAT IS ALREADY IN THE RECORD.

>> IT IS.

>> WE CAN LOOK AT IT. WHAT I WOULD LIKE TO ASK FOR THE RECORD IS IF YOU WOULD LIKE TO HAVE UPS SUBMIT THEIR EXPLANATION FOR WHY THE ELECTED TO NOT COMPLY VOLUNTARILY WITH PART 117. THAT IS WHAT I WOULD LIKE TO GET TO MY IF YOU COULD TAKE AN IOU ON THAT.

>> I WOULD BE HAPPY TO PROVIDE THAT FOR THE RECORD.

>> AND FOR THE RECORD, FEDEX ALSO ELECTED NOT TO GO DOWN THAT ROUTE AS WELL.

>> THAT IS CORRECT.

>> YOU MENTIONED A VIEW MINUTES AGO THAT WHEN PILOTS CALL IN FATIGUE, THERE ARE A FEW QUESTIONS -- THREE QUESTIONS THAT THE SCHEDULER WILL ASK. AND THE LAST QUESTION THEY ASK IS "WILL YOU BE FIT FOR YOUR NEXT DUTY PERIOD," CORRECT?

>> THAT IS CORRECT. CORRECT --

>> THE CHIEF COUNSEL ISSUED AN OPINION THAT HAS TO DO WITH IF I HAVE A COOMBER -- CREWMEMBER AND I HAVE SIGNED A FOUR LEG TRIP AND I WILL BE GOOD FOR THE NEXT FOUR LEGS AND THE CHIEF COUNSEL'S OFFICE SAYS, NO, YOU CANNOT ATTEST TO SOMETHING THAT IS GOING TO HAPPEN WAY DOWN THE ROAD, THAT WAS THEIR OPINION. AGAIN, THEY ARE TALKING ABOUT WHAT -- PART 117, BUT THE SAME QUESTION APPLIES HERE. HOW CAN YOU CALL IN AND SAY I'M FATIGUED WHEN MY NEXT DUTY TIME FRAME IS 48 HOURS DOWN THE ROAD. HOW DO YOU EXPECT THEM TO KNOW THEY WILL BE FIT FOR DUTY FOR THAT?

>> WE EXPECT OUR PILOTS TO TAKE CARE OF THEMSELVES IN A MANNER THAT THEY WILL BE ABLE TO FIT -- BE FIT FOR DUTY. AND IF THEY ARE NOT, WE REMOVE THEM FROM

FLIGHT STATUS. IT IS THAT SIMPLE.

>> BUT THEY REALLY CANNOT ANSWER THE QUESTION AND BE HONEST WITH YOU OR THEMSELVES BASED ON WHAT THIS CONVERSATION IS. IS THAT CORRECT?

>> I DON'T KNOW. WE HAVE NEVER HAD AN ISSUE WITH THAT, TO TELL YOU THE TRUTH.

>> YOU MENTIONED THERE WERE 138 FATIGUE CALLS LAST YEAR, AND THEN YOU GAVE SOME VERY LARGE FIGURE FOR THE NUMBER OF FLIGHTS THAT ARE FLOWN EACH YEAR, BUT THERE IS A DIFFERENCE. A FATIGUE CALL WILL ACCOUNT FOR 15 FLIGHTS. IF I CALL IN SICK FOR A TRIP, THEN THAT MEANS I'M NOT FLYING 10 FLIGHTS. THAT IS NOT DIRECTLY APPLES TO APPLES COMPARISON, CORRECT?

>>

>> NO, YOU ARE INCORRECT. IT IS FOR A SERIES OF FLIGHTS.

>> OK, THANK YOU. THANKS. YOU SAID THAT YOU WENT BACK AFTER THE ACCIDENT AND LOOKED AT THIS ACCIDENT TRIP PAIRING. I AM HEARING DIFFERENT THINGS. HAS UPS ANALYZE THIS ACCIDENT TRIP PAIRING TO SEE IF IT WOULD HAVE BEEN COMPLIANT WITH PART 117 --

>> I AM GOING TO STOP YOU BECAUSE YOU USED THE WORD ANALYSIS AND WE ARE TRYING TO STAY AWAY FROM THAT.

>> WELL, I AM GOING TO REFER TO THE EXHIBIT 2A, AND I WANT TO KNOW IF THIS IS A TRUE STATEMENT . I AM HEARING TWO THINGS AND I WANT TO GET IT STRAIGHT IN MY OWN MIND. I WILL COME BACK FOR ANOTHER ROUND ON THAT ONE, THANK YOU.

>> THERE WAS A SLIDE SHOWN THAT WAS INTENDED TO SHOW THE SAFETY EFFORTS OR THE EFFORTS TO PICK UP ERRORS AND SO FORTH. ALL OF THIS IS KIND OF DEPENDENT ON A COUPLE OF SELF ASSESSMENTS. SELF-ASSESSMENT OF INDIVIDUALS FATIGUED AND FITNESS FOR DUTY. ANYBODY CAN COMMENT. WHAT ARE THE DIFFICULTIES WITH A SELF-ASSESSMENT OF FATIGUE OR A SELF-ASSESSMENT OF FITNESS FOR DUTY?

>> ONE OF THE DIFFICULTIES IS, AS I MENTIONED EARLIER, SOMETIMES THE FATIGUED PERSON IS THE WORST PERSON TO ASSESS THE FITNESS FOR DUTY. OFTEN TIMES, IT WAS EVEN TAUGHT IN THE UPGRADE CRM TESTING COURSE THAT OFTEN TIMES YOU OVERESTIMATE YOUR ABILITIES WHEN YOU ARE IN A FATIGUE CONDITION. BEING FATIGUED CAN INFLUENCE YOUR SITUATIONAL AWARENESS. BEING FATIGUED IMPACTS YOUR LOGIC AND REASONING, AND THE FACT THAT A LOT OF OUR FLIGHTS OCCUR DURING THE BACKSIDE, AT THE POINT THAT YOU ARE AT YOUR MAXIMUM SLEEPINESS, SO SOMETIMES IT IS ETHICAL TO DETERMINE YOUR FITNESS FOR DUTY. YOU THINK, MAYBE I CAN JUST PUSH ON. I HAVE TALKED TO A LOT OF CRIMINALS AT THIS -- AS THE FATIGUED COMMITTEE CHAIRMAN BUT ALSO AS A FELLOW PILOT, KOLLY, AND THE DISCUSSIONS ARE VERY FRANK AND OPEN. AFTER THEY LAND AND GET TO THE HOTEL, THEY SAY I PROBABLY SHOULD NOT HAVE DONE THAT, BUT THEY DID NOT KNOW BEFORE HAND.

>> THE RESEARCH BASIS FOR THAT ASSERTION GOES BACK TO WORK THAT DR. ROSEKIND AND DR. GRABER DID 20 YEARS AGO. IF YOU ASK PEOPLE, HOW SLEEPY ARE YOU, AND

YOU PUT THEM IN A QUIET, DARK ROOM IN A COMFORTABLE CHAIR OR BED AND MEASURE THEIR MEAN TIME TO FALL ASLEEP, THE QUESTION OF TIME IS NOT CORRELATED.

>> GIVEN THE DIFFICULTIES WITH THE SELF-ASSESSMENT, WHAT PROCEDURAL OR OTHER MEANS HAVE BEEN PUT IN PLACE TO ADDRESS THIS DIFFICULTY WITH A SELF-ASSESSMENT ? I MEAN, WE HAVE HEARD THAT WE TEND TO OVERESTIMATE OUR ABILITIES AND WE ARE NOT GOOD AT JUDGING HOW FATIGUED WE ARE. SO THAT THEN BEGS THE QUESTION -- WELL, HOW DO YOU WORK AROUND THIS?

>> HERE IS WHAT WE HAVE DONE. THE AIR WANT -- THEY GUIDE PROVIDES VERY GOOD BEST PRACTICES, LATEST IDEAS AND TECHNIQUES FOR ATTAINING ADEQUATE REST SO THAT YOU CAN REPORT FIT FOR DUTY. RATHER THAN GOING ABOUT POINTING OUT WHAT A FATIGUE IS, WE DEFINE IT IN OUR FRMP WHAT IT IS. WE CHOOSE TO GIVE THEM TOOLS. WE GIVE OUR AIR CREWS TOOLS SO THAT THEY CAN MANAGE THE OPPORTUNITIES THAT THEY DO HAVE FOR REST. WE PROVIDE SLEEP ROOMS IN ALL OF OUR MAJOR DOMICILES. WE PROVIDE CAN CRACK -- CONTRACTUAL DAY ROOMS AT LOCATIONS THAT DO NOT HAVE THE FACILITIES REQUIRED UNDER OUR CONTRACT FOR OUR AIR CREWS AND WE DO MANY DIFFERENT THINGS TO HELP THEM GET, GET REST, WHATEVER THEY MAY NEED DURING THE COURSE OF THEIR DUTY PERIODS. WE JUST DO NOT SLING THEM OUT THERE. TO YOUR POINT PERHAPS IS WE HAVE HAD CAPTAINS IN THE PAST CALL IN AND SAY I HAVE GOT A FIRST OFFICER HERE THAT NEEDS SOME HELP BECAUSE HE IS NOT DOING SO WELL, AND WE REMOVE HIM FROM FLIGHT DUTY. IT DOES HAPPEN. WE DO HAVE CREWMEMBERS TALKING TO ONE ANOTHER AND DISCUSSING THEIR FITNESS FOR DUTY OR HOW TIRED THEY ARE OR EVEN IF THEY ARE FATIGUED. IT DOES HAPPEN.

>> I UNDERSTAND SLEEP ROOMS AND THE LIKE ARE REALLY MITIGATION TECHNIQUES, NOT REALLY ASSESSMENT TECHNIQUES. WE HAVE TOOLS TO HELP THE INDIVIDUAL WITH A SELF-ASSESSMENT.

>> NOT THAT I KNOW OF. I DO NOT KNOW THAT WE HAVE ANY PUBLISHED TOOLS TO HELP A CREW MEMBER WITH SELF-ASSESSMENT AND SO FORTH.

>> I HAVE TOO MANY QUESTIONS, BUT WE ARE GOING TO START WITH THREE CLARIFICATIONS, STARTING WITH THE FATIGUE WORKING GROUP WHICH SAYS -- DEALS WITH THE DEBIT QUESTION.

>> THEY DEAL WITH THOSE RECOMMENDATIONS WHERE AIRCREW ACCOUNTABILITY IS THE QUESTION.

>> MEMBER SUMWALT HAD QUESTIONS HOME AND ON PAGE 27, I WILL STAY WITH DR. WILSON'S GROUP. DIRECTIVE OPERATIONS ACTUALLY GIVES US INTERPRETATION FOR REASONS THAT UPS DID NOT VOLUNTARILY. THE QUESTION IS RIGHT ON TRACK. I MIGHT JUST HONE THAT A LITTLE, THAT YOU CAN PROVIDE THE OFFICIAL POSITION UPS HAS AND WHY IT HAS NOT VOLUNTEERED, THAT WOULD BE HELPFUL FOR US. IT WOULD BE GOOD TO GET THE UPS ONE FROM YOU.

>> I HAVE A NOTE. IT WILL HAPPEN.

>> GREAT.

>> IT IS HARD TO TELL HOW FATIGUED YOU ARE, BUT THERE ARE PHYSIOLOGICAL THINGS YOU USE. THERE ARE PHYSIOLOGICAL SIGNS. IT IS TRANSLATING GOES INTO CHECKLISTS, ETC., BECAUSE WE DO NOT HAVE THAT FATIGUEILIZER EVERYBODY WOULD LIKE TO HAVE. BUT THE FATIGUE EVENT REPORT OR THE OTHER THING THAT YOU ARE -- AND I'M NOT GETTING OF THE ACRONYMS OF YOUR PARTICULAR ONE WITH THE OTHER GROUPS -- BUT ON PAGE 21 COMMITMENTS ABOUT UPS ENCOURAGED CREW MEMBERS TO REPORT ANY FATIGUE EVENT, EVEN IF IT IS NOT REQUIRED, BY SUBMITTING AN FATIGUE EVENT REPORT SO A ROOT CAUSE ANALYSIS CAN BE CONDUCTED, STRESS IDENTIFIED, AND MEDICATION TAKEN. I AM WONDERING IF EITHER OF YOU FROM THE FATIGUE WORKING GROUP OR THE OTHER ACTIVITIES CAN ACTUALLY TELL US THE TOP THREE ROOT CAUSES THAT HAVE BEEN FOUND, WERE THREATS HAVE BEEN IDENTIFIED, AND SPECIFIC MITIGATION THAT HAS TAKEN PLACE. LET'S KEEP THIS FOCUSED AND SHORT.

>> NOT SURE I CAN DO THAT. BRING UP THE SLIDES, LET'S SEE, 20A, SLIDE 3, I BELIEVE. THAT WILL ANSWER YOUR QUESTION AS TO PRIMARY CAUSAL EFFECTS. JUST FOR THE AIRBUS FLEET, NOT OVERALL. WOULD YOU ASK ME TO QUESTION ONE MORE TIME?

>> BASICALLY, YOU ARE SAYING THAT YOU'RE GOING TO BE LOOKING AT ROOT CAUSE TO PROVIDE MITIGATION. CAN YOU GIVE US THE TOP THREE OF WHAT YOU FOUND IN 2013 IN THOSE AREAS?

>> I CANNOT. THE FATIGUE WORKING GROUP LOOKS AT THE OPERATIONAL CIRCUMSTANCE UNDER WHICH THE FATIGUE I'LL OCCURS. THE FATIGUE SAFETY ACTION GROUP DIVES DOWN DEEPER INTO THE ACTUAL PRIMARY CAUSAL FACTORS. YOU'RE LOOKING AT THE PRIMARY CAUSAL FACTORS THAT ARE ASSIGNED TO THOSE SPECIFIC FATIGUE CALLS. EVERYTHING IS IN AND IDENTIFIED MANNER. THEY KNOW THE PAIRING AND FLEET TYPE, BUT THAT IS THE EXTENT OF THE IDENTIFICATION THAT OCCURS. ONE THING YOU MENTIONED FROM FATIGUE EVENT REPORTS WHEN THERE'S NOT ANY REQUIRED, WITH THAT IS REFERRING TO IS WE HAVE CREWMEMBERS OUT THERE THAT ARE FLYING THEIR LINES AND HAVE NOT CALLED FATIGUED BUT HAVE SAID I WOULD LIKE THE FATIGUE SAFETY ACTION GROUP TO TAKE A LOOK AT THIS PAIRING. IT SEEMS TO HAVE A PINCH POINT. WE HAVE HAD 29 OF THOSE KINDS OF FATIGUE EVENT REPORTS THIS YEAR WERE NO FATIGUE CALL WAS ASSOCIATED WITH IT. WE TREAT THOSE JUST LIKE WE DO EVERYTHING ELSE AND TAKE A HARD LOOK AT IT IN THE SAME MANNER I EXPRESSED.

>> THIS IS GREAT. CAN YOU ADD TO IT THE MITIGATION, AT IT TO THE RECORD, AND WHAT WAS ENACTED BASED ON THIS?

>> YES, SIR.

>> I ALSO THINK PART OF THE QUESTIONS WE COVERED EARLIER, YOU HIGHLIGHT A SHARE RESPONSIBILITY. SOME OF THE QUESTIONS THAT CAME UP AND I WANTED CLARIFICATION, IT IS NOT JUST ABOUT DEBIT OR NO T, RIGHT?

>> THERE IS A SECONDARY --

>> I'M NOT INTERESTED IN THAT GROUP. THERE WERE A BUNCH OF OTHER GROUPS GOING ON IN FRMP, AND THERE IS A SHARED RESPONSIBILITY WITH FAA THAT IS INVOLVED. CAN YOU TELL US HOW THAT WAS A NECK IT ON YOUR PROPERTY?

>> SURE, WE PROVIDE GUIDANCE AND MITIGATION STRATEGIES AND WHAT NOT FOR THE CREWMEMBERS, AND WE EXPECT THEM TO SHOW UP FIT FOR DUTY. THAT IS THEIR RESPONSIBILITY. OUR RESPONSIBILITY IS DIVIDING SCHEDULES, TAKE MITIGATION STEPS, COLLECT DATA. MAKE CHANGES TO SCHEDULES THAT APPEAR TO HAVE A FATIGUE RISK ASSOCIATED WITH THEM.

>> FOR THE RECORD, IF YOU CAN PROVIDE US SOME EXAMPLES OF HOW, NOT ON THE EVENT SITE, BUT THE COMPANY SITE, YOU HAVE IDENTIFIED CERTAIN FATIGUE RELATED ACTIVITIES WITH SCHEDULES THAT LOOK AT ROOT CAUSE, THREATS IDENTIFIED, AND MITIGATION THE COMPANY CHOSE TO TAKE. CAN YOU DO THAT?

>> YES, SIR I CAN.

>> I AM A LITTLE OUT OF TIME.

>> THANK YOU. MS. ESPOSITO, I WAS CONFUSED ABOUT YOUR ANSWER ABOUT THE LARGE NUMBERS OF FATIGUE CALL FROM THE AIRBUS FLEET. I AM ASKING THE NUMBER, BUT I DO NOT UNDERSTAND WHAT YOU SAID ABOUT THE AIRBUS FLEET.

>> DID HE WANT TO PULL UP 20A? THAT MIGHT HELP IF YOU SHOWED AS 2013 FATIGUE CALLS.

>> WHILE THEY ARE PULLING UP THE SLIGHT, IT SHOWS THAT WE CATEGORIZED -- WE HAD SEVEN DIFFERENT CATEGORIES REGARDING DIFFERENT FLEETS AND DOMICILES THAT THE COMPANY TRACKS SYSTEMWIDE FATIGUE CALLS. THIS IS FOR 2013. ONE MORE SLIDE UP -- NO, THE OTHER WAY. ONE MORE. ONE MORE. THIS IS THE SYSTEMWIDE FATIGUE CALLS, THE NUMBER OF FATIGUE CALLS RECEIVED IN 2013. ALONG THE LEFT SIDE, THAT GIVES THE FLEET AND THE DOMICILE. THE GRAND TOTAL IS THE FOLLOWING ONE. ON THE A-300, THERE WERE 38 OUT OF 138 FATIGUE CALLS IN 2013, WHICH IS ALMOST 30%.

>> DID YOU STATE A REASON FOR THAT? THAT IS WHY I WAS CONFUSED.

>> THE NEXT SLIDE WILL SHOW, IF YOU SCROLL DOWN, IT IS THE FATIGUE CALL SUMMARY. THE CIRCUMSTANCES BEHIND THIS. WHEN A CREW MEMBER FILLS OUT AN EVENT REPORT, THERE ARE DROP-DOWN BOXES AND THEY CAN FILL OUT WITH THE CAUSE WAS AND THEN THEY PROVIDE AN NARRATIVE AT THE BOTTOM WHICH IS ACTUALLY THE MOST HELPFUL PIECE FOR US. THAT LINE NO CHANGE REPRESENTED 16 OF THOSE 38 CALLS. WHAT THAT MEANS, LINE NO CHANGE, IT MEANS THE SCHEDULE AS IT WAS INSTRUCTED IN THE BID PACKAGE. THAT WAS THE NUMBER ONE REASON ON THE AIRBUS, THE NUMBER ONE CIRCUMSTANCE FOR THE AIRBUS FATIGUE CALLS IN 2013.

>> I AM NOT SURE I UNDERSTAND WHAT THAT MEANS, LINE NO CHANGE. WHY WOULD THAT CAUSE --

>> AS IT WAS CONSTRUCTED, SOMETHING IN THERE CAUSED THE CREW MEMBER TO BECOME FATIGUED AND FOR WHATEVER REASON CANNOT GET THE PROPER AMOUNT OF REST TO BE RESTED AND FIT FOR DUTY FOR ONE OF THE DUTY PERIODS SOMEWHERE IN THAT SCHEDULE.

>> OK, THANK YOU. CAPTAIN SNYDER, DOES UPS HAVE A NEAR MISS REPORTING SYSTEM?

THINGS THAT ALMOST WENT WRONG? MY OPENING QUESTION IS GOING TO BE, ARE YOU SATISFIED THAT THE FATIGUE CALL-IN PROGRAM IS ROBUST AND PEOPLE ARE WILLING TO DO IT WITHOUT FEAR OF RETRIBUTION? DO YOU HAVE ANY OTHER INDICATORS LIKE OTHER CREWMEMBERS SAYING I THINK THIS PERSON IS FATIGUE OR REPORTING WENT WRONG AND YOU DUG INTO IT AND IT LOOKED LIKE A FATIGUE ISSUE? ARE YOU SATISFIED THAT THIS ROW GRAHAM -- BUT PEOPLE ARE WILLING TO DO IT WITHOUT FEAR OF RETRIBUTION?

>> I FEEL THAT WE HAVE A VERY ROBUST AND MULTI-LAYERED FATIGUE PROGRAM. I WOULD HOPE THAT NO CREW MEMBER WOULD FEEL THAT THERE IS A PENALTY OR WHATEVER ASSOCIATED WITH CALLING IN A FATIGUE. WE HAVE TOLD THEM IT IS A NONPUNITIVE SYSTEM. EVERY FATIGUE CALL IS REVIEWED AT ITS OWN MERIT. THERE IS NO REASON WHY SOMEBODY SHOULD NOT CALL AND FATIGUE. AS FAR AS YOUR COMMENT ON NEAR MISSES, PERHAPS A BETTER COROLLARY TO THAT WOULD BE OUR ASAP REPORTING SYSTEM. IN 2013, WE HAD A LITTLE OVER 1000 ASAP REPORTS. IN THAT ASAP REPORT, THERE IS A LITTLE BOX THAT CAN BE CHECKED THAT SAYS FATIGUE. 1,080 OR SO ASAP REPORTS, ABOUT 113 OR SO OF THOSE BOXES WERE CHECKED. 13%, SOMETHING LIKE THAT. SO, YES, I FEEL VERY CONFIDENT WITH OUR FATIGUE SYSTEM THE WAY IT IS SET UP.

>> OK, THANK YOU. MS. ESPOSITO, I WILL NOT PUT YOU ON THE SPOT ABOUT YOUR VIEWS. BUT HAVE YOU HEARD FROM YOUR FELLOW PILOTS HOW THEY FEEL ABOUT WHETHER THEY CAN COMFORTABLY REPORT WITHOUT FEAR OF RICHARD BHUSHAN? -- WITHOUT FEAR OF RETRIBUTION?

>> WE HAVE COME A LONG WAY FROM WHERE WE STARTED AND ARE WORKING WITH THE FATIGUE WORKING GROUP. HOWEVER, IF YOU WERE TO ASK ME, AND I AM CONFIDENT IF YOU WOULD ASK MOST MY CREWMEMBERS, IF THEY FEEL WE ARE STAKEHOLDERS AND HAVE BUY-IN TO THIS PROGRAM AND THE FATIGUE PROGRAM, VERY MUCH AS WE DO WITH THE GO-AROUND PROGRAM, I DO NOT THINK WE'RE THERE YET. I THINK WE HAVE STARTED. WE ARE IN OUR INFANCY. WE HAVE SOME WORK TO GO. THE CREWMEMBERS KNOW THAT IF YOU CALL IN SICK A CERTAIN AMOUNT OF TIME, I THINK IT IS SIX SICK CALLS AND 13 MONTHS, YOU'LL GET A CALL FROM YOUR ASSISTANT CHIEF PILOT. AND THAT MAKES PILOTS NERVOUS. PILOTS HAVE A CERTAIN TYPE OF A PERSONALITY. THEY WANT TO DO A GOOD JOB. TIGHT A PERSONALITY. SOME PEOPLE JUST DO NOT WANT TO DRAW ATTENTION TO THEMSELVES. I HAVE BEEN TOLD BY FRIENDS THAT I CALLED IN SICK INSTEAD OF CALLING IN FATIGUE AND WANT NOT. I THINK WE ARE ON THE RIGHT TRACK, BUT I DO NOT THINK WE HAVE COMPLETE BUY-IN. I DO NOT FEEL THAT WE ARE 100% STAKEHOLDERS BEING INVOLVED MORE IN ROOT CAUSE ANALYSIS. WE RECOGNIZE WE HAVE SOME ISSUES AND SOME PROBLEMS, AND WE END UP AT THE FATIGUE WORKING GROUP LEVEL DEBITING SOME OF THESE FATIGUE CALLS THAT WERE INITIALLY RECOMMENDED FOR DEBIT, BUT WE NEED TO GO BACK AND CORRECT WHAT WAS WRONG IN THE FIRST PLACE. WE NEED TO DO IT COLLECTIVELY, AND WE NEED TO DO IT TO GET COMPLETE BUY0--IN FROM CREWMEMBERS.

>> OK, THANK YOU.

>> WE HAVE HAD A LITTLE BIT OF DISCUSSION ABOUT THE NEW FATIGUE RULES. I WANT TO MAKE CLEAR THAT WE HAVE GOTTEN A NUMBER OF DIFFERENT PIECES OF INFORMATION. ALL OF THEM HAVE SOME ASPECT OF ANALYSIS ASSOCIATED WITH THEM. WE ARE TRYING

TO UNDERSTAND HOW TO DEAL WITH THEM. ONE OF THEM WE RECEIVED TODAY. AND THE OTHER PARTIES HAD NOT HAD A CHANCE TO REVIEW IT. OUR TEAM IS COMMITTED TO WORKING WITH THE PARTIES TO ESTABLISH FACTUAL INFORMATION. WE WILL CONTINUE TO DO THAT THROUGHOUT THE INVESTIGATION. WE JUST NEED TO BE CAUTIOUS AS WE'RE MOVING INTO AREAS WHERE WE MIGHT HIT ANALYSIS. I JUST WANT TO PUT THAT OUT THERE. I DO WANT TO FOCUS A LITTLE BIT AT A HIGHER LEVEL. I THINK WE'RE REALLY IN THE WEEDS ON A LOT OF DIFFERENT THINGS. MAYBE I CAN COME TO DR. TIGHTEST ARE -- DR. CHIDESTER AND ASK ABOUT WHAT ARE SOME OF THE HIGH-FREQUENCY RISK FACTORS THAT YOU SEE THAT AFFECT HUMAN PERFORMANCE? SO KIND OF THE BUCKET LIST.

>> BUCKET LIST? WELL, I GUESS I WOULD GO TO SOME OF THE THINGS THAT HAVE SHOWN UP IN THE ASAP PROGRAMS AND THINGS IN FOCAL PROGRAMS. I WOULD GO TO THOSE LIST AND TAKE A LOOK AT THOSE. THE DECISION PROCESS WOULD CERTAINLY BE THERE. WE HAVE A HISTORY ON THAT. COMMUNICATION, BOTH WITHIN THE COCKPIT AND EXTERNALS OF THE COCKPIT HERE IT MISSED COMMUNICATIONS BETWEEN PILOT AND ITC IS A LARGE ONE. RUNWAY SAFETY IS ANOTHER ISSUE THAT IS THERE. I AM SORRY THAT I DO NOT BRING ALONG A LIST OF THINGS. IN GENERAL, WHAT I WOULD SAY IS TAKE A THREAD IN AIR MANAGEMENT APPROACH TO EACH FLIGHT. WHAT IS LIKELY TO CAUSE A PROBLEM FOR THAT AND WHAT SHOULD WE PREPARE FOR THAT PARTICULAR CHARGE?

>> OK, YOU'RE TALKING ABOUT ALL FLIGHTS, ALL FLIGHT OPERATIONS -- HAS A JERK, CARGO, DAY, NIGHT. MORE OF AN AGGREGATE, -- PASSENGER, CARGO, DAY, NIGHT. MORE OF AN AGGREGATE, CORRECT AS TO MY

>> CORRECT.

>> WHAT ABOUT RISKS, ARE THEY THE SAME?

>> THERE ARE THINGS THAT ARE DIFFERENT. YOU'RE UNLIKELY TO HAVE A PASSENGER PROBLEM ON A CARGO FLIGHT, ALTHOUGH IT CAN HAPPEN. YOU'RE MORE LIKELY TO HAVE A CARGO PROBLEM HERE IT WE HAVE SEEN HISTORIES OF THOSE EVENTS. THE NIGHTTIME OPERATION WORSE IS THE DAYTIME OPERATION. THE CARGO OPERATIONS ARE DONE PREDOMINATELY AT NIGHT. PASSENGER OPERATIONS ARE DONE LESS FREQUENTLY AT NIGHT. BUT FOR THE TASK OF THE PILOT, I AM NOT SURE THERE IS THAT GREAT OF A DIFFERENCE IN THE EXPOSURES TO RISKS BETWEEN THOSE TWO DIFFERENT TYPES OF OPERATIONS.

>> OK, NIGHTTIME OPERATIONS -- ARE THERE PARTICULAR RISK FACTORS THAT ARE UNIQUE OR ELEVATED FOR NIGHTTIME OPERATIONS? LIKE ANYTHING THAT IS UNOBSERVABLE OUTSIDE OF THE COCKPIT AND ANY UNLIT TERRAIN IS AN ISSUE. THE BLACK HOLE APPROACHES ONLY SHOW UP AS AN ISSUE AT NIGHT

>> DOES THE RESEARCH SHOW THAT THERE ARE MORE FATIGUE ISSUES AT NIGHT AND NIGHT OPERATIONS?

>> CERTAINLY, HUMAN FATIGUE IS KIND OF PREDICTABLE BY TIME OF DAY, TIME OF DUTY, AND TIME SINCE AWAKENING. AND YOU PUT THAT WITH THE SLEEP DEBT THAT YOU HAVE GOT, NIGHT OPERATIONS AFFECT THAT.

>> OK, THAT WAS GREAT. I WAS LOOKING FOR A MORE BROAD OVERVIEW. LET ME GO TO CAPTAIN SNYDER. I WANT TO MAKE SURE I WROTE THIS DONE CORRECTLY. I THINK HE SAID 100 20,000 FLIGHTS A YEAR. IS THAT RIGHT?

>> YES, MA'AM, THAT IS CORRECT.

>> WHAT PERCENTAGE OF THOSE FLIGHTS ARE TAKING PLACE DURING WHAT WE WOULD CALL NIGHTTIME HOURS? MAYBE YOU CAN TELL ME HOW YOU WOULD DEFINE NIGHTTIME HOURS, BECAUSE IT IS PROBABLY DIFFERENT FOR DIFFERENT PEOPLE.

>> I WOULD SAY THE MAJORITY OF OUR FLIGHTS OCCUR AT NIGHT. WE DO HAVE DAY FLYING. LET'S SAY UP TO 2000, UP TO 8:00 IN THE EVENING. WE DO HAVE FLIGHTS THAT OPERATE DURING THE DAYTIME. THE MAJORITY OF OUR FLIGHTS OCCUR FROM 8:00 AND NIGHT UNTIL 6:00 OR 7:00 IN THE MORNING. THAT IS THE NATURE OF THE BUSINESS. QUICK SCAN YOU BALLPARK IT AND USE A MAJORITY QUESTION AT 55% OR 95%?

>> IT IS HIGHER THAN 55 BUT NOT 95%. 75%? I DO NOT KNOW. IT IS A SIGNIFICANT NUMBER OF FLIGHTS.

>> IF YOU CAN PROVIDE THAT, THAT WOULD BE OF INTEREST AS A DATA POINT FOR US.

>> I WILL DO THAT.

>> GREAT. WHY DO THEY OCCUR AT NIGHT IS TO WRITE MAYBE KIND OF HELP US UNDERSTAND THAT. ARE THEY NOT A CURRYING DURING THE DAYTIME? ARE THERE ACTIVITIES TAKING PLACE? IS IT BECAUSE OF CONGESTION AT THE AIRPORTS?

>> YOU ARE ASKING ME TO SPEAK FOR THE COMPANY NOW, YOU UNDERSTAND.

>> WELL, YOU ARE REPRESENTING THE COMPANY. IF YOU WANT TO GET BACK TO US IF YOU DO NOT FILL COMFORTABLE -- IT IS MORE TO GIVE PEOPLE A HIGHER LEVEL OF UNDERSTANDING AS TO WHY THE CARGO FLIGHTS ARE PREDOMINATELY TAKING PLACE AT NIGHT. I KNOW YOU HAVE A SORT PROCESS, BUT HELP US UNDERSTAND.

>> WE HAVE A BUSINESS THAT GUARANTEES DELIVERY BETWEEN 8:00 AND 10:00 IN THE MORNING. THAT IS THE BUSINESS MODEL.

>> DOES IT HAVE ANYTHING TO DO WITH CONGESTION AT AIRPORTS OR IN THE AIR OR ANYTHING LIKE THAT OR IS IT BECAUSE IT IS AN OVERNIGHT DELIVERY SERVICE?

>> OVERNIGHT DELIVERY SERVICE, BUT THERE ARE SOME BENEFITS TO FLYING AT NIGHT. CONGESTION, CHATTER, THE WEATHER . THOSE ARE ACTUALLY LESS OF A THREAT ON A NORMAL NIGHT OF FLYING BECAUSE IT IS NOT OUT THERE.

>> THANKS.

>> THANK YOU, CAPTAIN SNYDER. A MOMENT AGO I WAS ASKING YOU ABOUT A CREW MEMBER BEING ABLE TO TEST THEIR FUTURE LEGS, AND YOU SAID WE ASSUME THAT THEY WILL MANAGE THEIR PERSONAL TIME RESPONSIBLY. THE WOULD YOU ACKNOWLEDGE -- YES, THAT IS CERTAINLY ONE FACTOR. CREW MEMBERS DO NEED TO

MANAGE THEIR PERSONAL TIME IN A RESPONSIBLE MANNER. THE WOULD YOU ACKNOWLEDGE THAT THERE ARE OTHER FACTORS THAT CONTRIBUTE TO FATIGUE AS WELL, OTHER THAN MANAGING YOUR PERSONAL TIME?

>> SURE. I MEAN, LIFE CONTINUES. WE HAVE GOTTEN -- SOMETIMES THEY'RE HUMOROUS, BUT WE GET FATIGUED CALLS FROM CREW MEMBERS THAT HAVE HAD A BIOLOGICAL ISSUE WITH A CHILD IN THE MIDDLE OF THE NIGHT. WE GET FATIGUED CALLS FROM CREW MEMBERS WHO PERHAPS GOT A BRAND-NEW PHONE AND DID NOT KNOW HOW TO TURN IT OFF. I WISH I COULD TELL YOU THAT I HAVE SEEN IT ALL, BUT I HAVE NOT EVEN COME CLOSE TO SEEING IT ALL.

>> UNDERSTAND. THANK YOU. CAPTAIN PARKER, YOU WERE TALKING ABOUT MONITORING AND YOU SAID THAT YOU ARE "TALKING ABOUT MONITORING THIS YEAR." AT THINK YOU MENTIONED EVER SINCE THE ACCIDENT. I THINK YOU SAID THEY HAVE BEEN TALKING ABOUT MONITORING. I THINK YOU SAID YOU'RE GOING TO MAKE AN EMPHASIS FOR 2014, I BELIEVE. TELL ME SPECIFICALLY WHAT YOU ARE DOING. I THINK YOU GAVE SOME GENERALITIES. I WANT SOME GRANULARITY HERE AT HOW DO YOU TRAIN MONITORING? A FEW WERE MENTIONED, BUT I WANT TO HEAR UPS' PLAN. HAVE THEY DONE IT PRIOR TO THE ACCIDENT AND HOW DO YOU PLAN ON DOING IT MOVING FORWARD?

>> WELL, I THINK WHEN YOU LOOK AT ACTIVE MONITORING, I KIND OF BREAK IT DOWN TO THREE PARTS. I LOOK AT THE VISUALIZED, ACT, AND COMPARE. THAT IS KIND OF WHAT WE TEACH, WHAT WE HAVE TAUGHT IN THE PAST, AND AS FAR AS 2015 WHERE WE IMPLEMENT THAT, RIGHT NOW WE ARE DEVELOPING THOSE 2015 PILOT MONITORING MODULES. IT IS MAINLY TO MAKE SURE THAT THE PILOT CAN CONFIRM AND VERIFY AND BE THERE FOR ANYTHING THAT BACKS UP OUR STANDARD OPERATING PROCEDURES. IT IS MANDATORY. IT IS IN OUR FOM. WE TALKED ABOUT THE IMPORTANCE OF ACTIVE MONITORING. THE HANDOUT THAT I SHOULD YOU EARLIER, IT ALSO TALKS ABOUT MONITORING THEIR, TOO.

>> I HAVE BEEN THINKING ABOUT MONITORING FOR A PRETTY GOOD WHILE NOW. WHAT I AM FINDING IS HE CAN TALK ABOUT IT A LOT AND READ ABOUT IT A LOT, BUT THAT DOES NOT NECESSARILY TRANSFER TO THE LINE OPERATIONS. I AM TRYING TO FIGURE OUT HOW TO MAKE THAT TRANSFERRED TO THE LINE OPERATIONS. I THINK YOU SAID THAT YOU LOOK FOR IT ON LYING CHECKS. I BELIEVE YOU SAID THAT IT HOW DO YOU EVALUATE IT? AND WHAT ARE YOU LOOKING FOR WHEN YOU EVALUATE IT? WHAT ARE THE FORMS THAT YOU'RE LOOKING AT WHEN YOU EVALUATE ON IT?

>> YOU'RE TALKING ABOUT THE STANDARD OPERATING PROCEDURES WHICH IS ALSO MANDATORY. AND THAT IS WHATEVER THAT WE DO AS FAR AS THE STANDARD OPERATING PROCEDURES, CALL-OUTS, CHECKLIST, STABILIZED APPROACH CRITERIA. ANY OF THOSE THINGS WE EXPECT OUR CREW MEMBERS OR THE PILOT MONITOR TO BE IN THE LOOP AND IDENTIFY WHEN SOMETHING LIKE THAT IS NOT HAPPENING. IT IS SOMETHING THAT I THINK WE -- I FORGOT THE SECOND PART OF YOUR QUESTION.

>> IT IS THE DATA PART OF IT. DO YOU HAVE A LINE CHECK WARM -- FORM WHERE YOU ARE SPECIFICALLY CHECKING OFF THAT YOU EVALUATED WHETHER OR NOT MONITORING WAS ADEQUATE?

>> YES, WE DO. WE LOOK AT LINE CHECK FORMS. I CAN FURNISH THAT FOR YOU. WE ALSO

DO IT IN OUR TRAINING, AND OUR NORMAL TRAINING GRADE SHEETS. WE DO LOOK AT PILOT MONITORING.

>> SO THAT IS SOMETHING THAT WOULD BE IN CREW RECORDS, HOW WELL PEOPLE ARE MONITORING. YOU'RE KEEPING RECORDS OF THAT?

>> YEAH, WE EXPECT -- OUR PILOTS ARE TRAINED TO A CROSS-STANDARD. THAT IS ONE OF THE THINGS THAT WE WILL CHECK OFF. IF THERE IS SOMEONE THAT IS DEFICIENT IN THAT AREA, LET'S SAY, THEN WE WOULD REMEDIATE THAT PERSON. WE WILL INDICATE THAT IN OUR FORMS. HOPEFULLY WE CAN REMEDIATE THEM IN THAT FOOTPRINT. AND IF IT IS NECESSARY TO GIVE THEM ADDITIONAL TRAINING IN TRAINING IN THIS AREA OF PILOT MONITORING. THAT IS ALSO PART OF THE RECORD.

>> OK, THANK YOU VERY MUCH.

>> MEMBER WEENER?

>> YES, CAPTAIN SNYDER, YOU SEEM TO HAVE THE DUBIOUS DISTINCTION OF BEING THE UPS SPOKESPERSON. I HAVE HEARD A LOT OF ACRONYMS. CRM, LOFT, AND SO FORTH. ARE THESE SEPARATE PROGRAMS OR DO THEY FIT INTO A LARGER CONTEXT?

>> THEY ALL FIT UNDER A SAFETY UMBRELLA. THE ENTIRE GAMUT OF THE ACRONYMS YOU USE PROVIDE DATA TO IMPROVE OUR SYSTEM, GIVE US BETTER WAYS OF DOING THINGS. YEAH, TO ANSWER YOUR QUESTION, WE DO.

>> WHAT I'M FISHING FOR IS A SAFETY MANAGEMENT SYSTEM.

>> YES.

>> HOW MATURE IS IT AT UPS?

>> WE ARE IN THE STAGES OF IMPLEMENTING SMS. WE ARE GOING THROUGH THE GROWING PAINS OF DOING IT AS WE SPEAK.

>> HOW LONG HAS THAT PROCESS BEEN GOING ON?

>> TWO YEARS.

>> TWO YEARS. THANK YOU.

>> MEMBER ROSEKIND.

>> SO, CAPTAIN SNYDER, FIRST OFFICER, IF I COULD ASK THE TWO OF YOU TO PROVIDE TWO THINGS. I WOULD LIKE THE TWO OF YOU TO SHARE YOUR PERSPECTIVE ON HOW THE FTSE EFFORTS ARE ENACTED AT UPS? SPECIFIC COMPANY EFFORTS ON THE PROPERTY. THE SECOND THING, THERE HAS BEEN A LOT OF DISCUSSION, NOT JUST ABOUT FATIGUE, BUT ACROSS THE BOARD. IT IS CLEAR THE TWO OF YOU HAVE DIFFERENT VIEWS AND PERSPECTIVES OF THIS. I'M CURIOUS. DOES THE PUBLIC UNDERSTAND THERE HAVE BEEN ANY EFFORTS AT ALL TO GET BEYOND THE INDIVIDUAL VIEWS OF THIS? ANY SURVEYS? ANY REPORTING ON HOW PEOPLE USE THE SYSTEM? HOW DO YOU INTERPRET THE

METRICS? HOW DO YOU KNOW WHETHER PEOPLE THINK THAT IS A LOT OR TOO LITTLE? SO, AND I JUST HAVE TO MAKE A GENERAL COMMENT. SOMETIMES THE QUESTIONS REALLY AREN'T TRICKY. WHEN THE CHAIRMAN SAYS, WHY DO YOU WORK AT NIGHT? YOU WORK AT NIGHT. IT REALLY WAS THAT. I ASSUME THAT YOU SAT IN ON THE FATIGUE INSTRUCTION? HOW IS THE KNOWLEDGE ACQUISITION IT EVALUATED? HOW DO YOU KNOW PEOPLE ARE GETTING THE INFORMATION? IS THERE A TEST? HOW DO YOU KNOW WHETHER PEOPLE LEARNED WHAT YOU WANTED THEM TO?

>> THAT'S A GOOD QUESTION. THERE WERE A FEW YEARS WHEN WE HAD CLASSROOMS WHERE WE TALKED -- TAUGHT, AND AS CREW CAME IN, WE GAVE THEM A LITTLE CRUISE -- WE GAVE THEM A LITTLE QUIZ TO SEE WHERE THEIR KNOWLEDGE BASE WAS. I DON'T KNOW IF WE DO THAT ANYMORE. AT ONE TIME WE DID DO THAT.

>> IT WOULD BE VERY HELPFUL IF ANY DATA YOU COULD PUT TOGETHER ON THAT, JUST TO GIVE US A SENSE OF WHAT ARE PEOPLE REALLY LEARNING. ARE THEY GETTING BETTER WORSE, -- BETTER, WORSE, THAT KIND OF STUFF? DO THEY APPLY IT?

>> I WOULD SAY REGARDING THE CURRENT MODEL IN TERMS OF FATIGUE EDUCATION, IT ROTATES FROM HOMESTUDY TO CLASSROOM. THIS YEAR IT WAS HOMESTUDY. I WOULDN'T CATEGORIZE IT AS A VERY ROBUST MODEL IN TERMS OF WHAT WAS TAUGHT. IT CONTAINED, I BELIEVE, JUST EXPERTS FROM THE FITNESS FOR DUTY FITNESS GUIDE. I THINK WE CAN DO BETTER. THERE WERE MAYBE ONE OR TWO QUESTIONS ON THE TEST. VERY BASIC QUESTIONS. SO, MOVING FORWARD, AS I MENTIONED BEFORE, WE HAVE COME A LONG WAY, BUT WE STILL HAVE A LONG WAY TO GO, NOT ONLY IN FITNESS EDUCATION, BUT UNDERSTANDING. IT IS A CULTURAL ISSUE. IT IS A CULTURAL ISSUE IN THE CORPORATION. THEY TRIED TO DO LIKE MANY BUSINESSES, DO MORE WITH LESS. WHICH MEANS MORE PRODUCTIVITY.

>> I WILL HAVE YOU STOP RIGHT THERE BECAUSE I'M ACTUALLY GOING TO FILE THIS ON A LITTLE BIT MORE FOR BOTH OF YOU. I THINK YOU USED A GOOD WORD. INFORMATION YOU HAVE ON THE ROBUSTNESS OF THAT PROGRAM WOULD BE GOOD. DO YOU HAVE ANY WAY OF EVALUATING HOW THEY ARE ACTUALLY USING THAT? WE HAVE HAD PEOPLE IN YOUR WITH DISTRACTION ISSUES THAT HAVE THE POLICY, HAVE THE COURSE, SHOWED US THE TRAINING FOR THE INDIVIDUAL AND THEN THEY WERE ON THE PHONE WHEN THEY SHOULDN'T HAVE BEEN. WHAT CAN YOU SHOW US? WE HAVE THE COURSE THAT IS ROBUST AND IT ACTUALLY CHANGES BEHAVIORS? THIS IS MY LAST PIECE, WHICH IS TO PUT THE TWO OF YOU ON THE SPOT. YOU GOT THIS AND THERE. IT CANNOT BE OVERSTATED SLEEP OR LACK OF SLEEP REALLY AFFECTS OUR PERFORMANCE. A SHORT LIST -- A SHORT LIST, BECAUSE WE ARE GOING TO DR. CHIDESTER.

>> WE EACH GET A LIST?

>> WHATEVER YOU HAVE TIME FOR.

>> LACK OF SLEEP? LACK OF MAKING DECISIONS, COMMUNICATING PROPERLY.

>> POOR RISK ASSESSMENT, POOR COORDINATION WITH COMPLEX MANEUVERS OR TASKS, DELAYED RESPONSE. AND SO FORTH.

>> SO, WE ARE TALKING VIGILANCE GOES DOWN? BEING ABLE TO PAY ATTENTION GOES

DOWN. THAT'S WHY I WANTED TO GIVE DR. CHIDESTER THE CLOSING. ON THOSE BASIC HUMAN CAPABILITIES, HOW IS THAT GOING TO AFFECT MONITORING, COMMUNICATION?

>> I THINK THEY MADE A GOOD LIST OF WHAT THE ISSUES ARE. AT A RELATIVELY LOW LEVEL. THE CONSEQUENCES ARE EXACTLY WHAT YOU SAID. SITUATIONAL AWARENESS IS THREATENED. THE ABILITY TO PERFORM A PROCEDURE IN A TIMELY MANNER, AND APPROPRIATE MANNER IS THREATENED. THE WILLINGNESS TO ACCEPT A LOWER STATEMENT -- STANDARD OF PERFORMANCE AND YOURSELF BEGINS TO SHOW UP.

>> SO, WHAT IS THE KIND OF THING YOU WOULD SEE FATIGUE AFFECT AND MONITORING?

>> YOU WOULD SEE THINGS MISSED. SOMETHING I DO THAT YOU DO NOT CATCH. SOMETHING I FORGOT TO DO THAT YOU DON'T CATCH AND CORRECT. ALL THOSE MONITORING THINGS AND BOTH MYSELF AND THE PERSON WHO WAS WATCHING ME ARE AT RISK.

>> THANK YOU.

>> VICE-CHAIRMAN?

>> THANK YOU. WE HAVE HEARD A LOT ABOUT STANDARD OPERATING PROCEDURES AND HOW IMPORTANT THEY ARE AND THEY ARE MANDATORY, AND OTHER, AT THAT ARE, AND I THINK WOULD -- WE WOULD ALL AGREE THAT STANDARD OPERATING PROCEDURES ARE IMPORTANT. BUT IN COMPLEX SYSTEMS, SOMETIMES THEY DON'T QUITE WORK. SOMETIMES THEY GENERATE I'M FOR SEEN CONSEQUENCES. ETC., ETC. I WOULD JUST SAY THIS IS A UPS QUESTION AND LET YOU GUYS WORK IT OUT. DO YOU HAVE A FEEDBACK PROCESS OF ANY KIND THAT ENABLES YOU TO HEAR FROM THE FRONT-LINE WORKERS, I.E. THE PILOTS, DISPATCHERS, THE MAINTENANCE PEOPLE, WHATEVER IT IS, THAT LETS YOU KNOW STANDARD OPERATING PROCEDURES, THAT MAYBE YOU'RE SEEING LOTS OF NONCOMPLIANCE WITH. I'M SURE YOU DO NOT KNOW WHY. MAYBE THAT IS BECAUSE THE STANDARD OPERATING PROCEDURE DOES NOT QUITE FIT THE CIRCUMSTANCE. I JUST WONDER IF YOU HAVE FEEDBACK PROCESSES THAT WOULD ALLOW YOU TO MEDIATE THOSE STANDARD OPERATING PROCEDURES?

>> YES, SIR. WE HAVE SEVERAL WAYS WE CAN GET FEEDBACK FROM OUR CREWMEMBERS IF SOME STANDARD OPERATING PROCEDURE IS NOT ADHERED TO. ONE WAY IS THE PILOT REPORTS. THEY CAN COME INTO IT THAT WAY. WE ALSO HAVE AN OPEN DOOR POLICY WITHIN OUR COMPANY, THAT ANYONE WHO WANTS TO COME TO US AND TALK TO US ABOUT STANDARD OPERATING PROCEDURES OR IF THERE WAS A BREAKDOWN IN ONE OF OUR CREWMEMBERS, THEY CAN COME AND TALK TO US THAT WAY. THE OTHER ONE IS, OUR ASAP PROGRAM. AND WE TALKED ABOUT ASAP BEFORE. A LOT OF TIMES WE USE THAT. IT IS A CONFIDENTIAL PROCESS, AS YOU KNOW. THEY CAN IDENTIFY BREAKDOWNS IN THE STANDARD OPERATING PROCEDURES. PROBABLY THE SECOND PART OF THAT -- IF THERE IS ANY DEFICIENCY RELATED TO STANDARD OPERATING PROCEDURES, WE HAVE TO ADDRESS IT. IF THERE WAS A CONTINUING PROBLEM WITH THE CREWMEN AND SOMEONE TOLD US ABOUT IT, WE HAVE TO ADDRESS IT. THERE WAS ONE OTHER AVENUE THAT I MISSED A COULD USE. THE INDEPENDENT PILOTS ASSOCIATION HAS A PROFESSIONAL STANDARDS COMMITTEE THAT THEY CAN ALSO GO TO AND TALK ABOUT MAYBE DEFICIENCIES AND STANDARD OPERATING PROCEDURES.

>> CAPTAIN SNYDER, DO YOU HAVE ANYTHING TO ADD TO THAT?

>> I THINK HE PRETTY MUCH COVER THE LIST. WE ALSO HAVE A VOLUNTARY DISCLOSURE PROGRAM WHERE WE WORK WITH THE FAA. HAZARD REPORTING IS AVAILABLE TO OUR CREWMEMBERS, MECHANICS. THERE ARE MYRIAD WAYS WE CAN GET FEEDBACK FROM CREWMEMBERS ON THINGS -- ACTUALLY FROM ANY EMPLOYEE, NOT JUST CREWMEMBERS, THINGS THEY ARE CONCERNED ABOUT.

>> THANKS FOR THAT HIGH LEVEL ANSWER. NOW I'M GOING TO GET MORE SPECIFIC, AND THAT IS THE PROFILE APPROACH. I WAS JUST WONDERING, IF HAZARD AND FEEDBACK -- HAS THERE BEEN FEEDBACK ON THE WAY THE PROFILE APPROACH HAS WORKED? WE SEE THIS NOT USED VERY OFTEN. THERE ARE INHERENT THREATS, THREATS IN ERROR MANAGEMENT. HAS THAT PROCESS BENEFITED FROM ANY OF THIS FEEDBACK LOOP YOU HAVE TO FIX STANDARD OPERATING PROCEDURES TO MAKE THEM MORE USABLE IN THE REAL WORLD?

>> NO, I HAVEN'T. IT DOESN'T MEAN WE HAVE NOT HAD SOME CONCERNS AS FAR AS PROFILE APPROACH IS CONSIDERED. YOU KNOW, WE HAVE A VERY GOOD, ROBUST TRAINING PROGRAM. TRAINING PROFILE APPROACHES. THEY COME IN AND THEY HAVE AN OPPORTUNITY TO SEE THEM WHEN THEY COME INTO RECURRENT TRAINING. I HAVE NOT NOTICED -- I AM NOT SAYING THAT IT'S NOT. AT MIGHT BE CONCERNS. BUT NOT TO THE DETAIL WHERE WE THINK THERE IS A BIG ISSUE THERE WITH PROFILE APPROACHES.

>> CAPTAIN SNYDER, ANYTHING TO ADD TO THAT?

>> THIS MORNING ON PANEL ONE, TWO CAPTAINS -- I CAN'T REMEMBER WHICH OF THE BOARD MEMBERS ASKED ABOUT DECISION APPROACHES. AND THE DIFFICULTY LEVELS. AND I DON'T KNOW IF IT WAS ARTICULATED -- THE U.S. IS NOT BUILDING ANY MORE PRECISION APPROACHES. WE ARE PROLIFERATING WITH NON-PRECISION APPROACHES, WHICH ARE JUST AS SAFE IF NOT AS EASY TO FLY AS A PRECISION APPROACH. EASY BEING A TERM I'M JUST DRAWING OUT THERE. I'LL APPROACHES HAVE THEIR CHALLENGES -- ALL APPROACHES HAVE THEIR CHALLENGES. THAT IS THE REASON. IT IS BECAUSE OF THE MYRIAD TYPE OF APPROACHES. THAT IS THE REASON WE HAVE THE PRECISION BRIEFING GUIDES AND OUR QRH'S AVAILABLE TO US TO MAKE SURE WE DON'T MAKE THOSE MISTAKES WHEN WE ARE SHOOTING THOSE APPROACHES.

>> OK, THANK YOU.

>> DR. CHIDESTER, IN THE SCHEME OF THINGS WHEN WE TALK ABOUT THE DIFFERENT RISK PROFILES FOR DIFFERENT TYPES OF FLIGHTS, GOING BACK TO THAT HIGH LEVEL LOOK, IN THE SCHEME OF THINGS, WHEN YOU ARE MOVING 120,000 FLIGHTS BUT ONLY 100 OR 88 -- 13 8 CALLS ON FATIGUE AM A IS THAT IN LINE WITH OTHER INDUSTRY STANDARDS TO KNOW IF THAT IS APPROPRIATE?

>> I DON'T KNOW. I DON'T KNOW T WHAT DATA WE WOULD LOOK TO TO SEE IF THAT IS A LOW OR HIGH RATE. I REALLY DON'T KNOW.

>> HOW ABOUT SIX CALLS? DO YOU HAVE ANY PERCENTAGES ON SICK CALL -- ON SICK CALLS ANNUALLY?

>> MA'AM, I DON'T KNOW. CERTAINLY MORE THAN 138.

>> I WONDER IF PEOPLE ARE USING SICK CALLS AS FATIGUE CALLS AREA DO YOU GET MORE SCRUTINY FOR A SICK CALL OR A FATIGUE CALL?

>> FROM A CREW MEMBER'S PERSPECTIVE, A SICK CALL WILL IMMEDIATELY AFFECT HIS SICK LEAVE ACCOUNT. FOR A FATIGUE CALL, THEY WILL NOT HAVE SICK LEAVE AFFECTED. IT IS NONPUNITIVE. WE WILL EXAMINE FOR YOU.

>> BUT YOU HAVE SICK LEAVE. IF YOU HAVE SICK LEAVE, YOU CAN USE IT.

>> NO, SICK LEAVE IS NOT PUNITIVE. IS THAT WHAT YOU'RE SAYING? DID I UNDERSTAND YOU CORRECTLY?

>> RIGHT. I THINK IF SOMEONE DOES NOT FEEL WELL, THEY CAN TAKE A SICK DAY. THEY HAVE EARNED THAT.

>> ABSOLUTELY.

>> TO YOU THINK SOME OF THOSE FATIGUE CALLS ARE COMING IN AS SICK CALLS?

>> I DON'T HAVE ANY INSIGHT INTO THAT. PERHAPS MS. ESPOSITO WILL HAVE INSIGHT INTO THAT, TALKING WITH CREWMEMBERS.

>> I AGREE WITH YOU, MADAM CHAIRWOMAN. SOMETIMES CREWMEMBERS CALL IN SICK WHEN THEY SHOULD CALL AND FATIGUE. I WAS TALKING TO A FRIEND. I SAID I DID NOT GET YOUR EVENT REPORT. THEY SAID, OH, I JUST CALLED IN SICK. THE FATIGUE CALL IS REVIEWED, AND WE FIND THE CREW MEMBER SHOULD NOT BE DEBITED SICK LEAVE, THEY ARE IN A BETTER POSITION FINANCIALLY, BUT IT WAS THE POINT I WAS MAKING EARLIER THAT CREWMEMBERS DO NOT HAVE FULL BUYING INTO THE FATIGUE PROGRAM. -- FULL BUY-IN TO THE FATIGUE PROGRAM. IT IS A CULTURE ISSUE. PERHAPS IT IS PERCEIVED AS A WEAKNESS. I SHOULD BE ABLE TO FLY IT. THE OTHER CREW FLEW IT. WHY CAN'T I FLY IT? I KNOW FOR A FACT PEOPLE TELL ME THAT THEY CALL IN SICK WHEN THEY PROBABLY SHOULD, AND FATIGUE.

>> SO THE CHALLENGES YOU ARE NOT GETTING THE DATA, YOU'RE NOT GETTING THE INFORMATION, YOU'RE NOT GETTING MORE FEEDBACK ON WHAT NEEDS TO BE CHANGED OR ADDRESSED. IF THEY ARE CALLING IN SICK, IT IS MASKING THOSE FATIGUE ISSUES, SO YOU'RE NOT GETTING FULL INFORMATION FOR AN SMS?

>> THAT IS OUR GOAL LEAVE. WE HAVE TRIED -- THAT IS OUR BELIEF. WE HAVE TRIED TO KEEP THIS IN VERY LIMITED DISTRIBUTION VERSUS GOING OUT TO A LOT OF PEOPLE WITHIN THE COMPANY TO REVIEW IT. WE HAVE TRIED TO KEEP A VERY LIMITED DISTRIBUTION BECAUSE WE WANT PEOPLE TO BE FORTHCOMING AND HONEST AND EXPLAIN WHY THEY ARE FATIGUE. -- FATIGUED. BUT AGAIN THEY ARE ADMITTING WHEN THEY FILL OUT THE FATIGUE REPORT THAT THEY WERE NOT 100%. THAT IS THE CHALLENGE FOR THE PILOT WHEN THEY DO THAT. I THINK WE NEED TO GET MORE BUY -IN FROM THE PILOTS AND UNDERSTAND THAT IT IS A NO-FAULT PROGRAM.

>> 10% OF YOUR REPORTS HAVE A FATIGUE COMPONENT. YOU ARE GETTING MORE DATA

THROUGH THERE. I THINK MY QUESTION AT THE END WOULD THE HOW DO YOU GET BETTER BUY-IN ON THIS AND HOW DO YOU CREATE AN ENVIRONMENT THAT IS MORE OF A PARTNERSHIP? I HAVE SEEN SOME REALLY OUTSTANDING SUCCESSES IN THE AVIATION INDUSTRY WHERE YOU REALLY DO HAVE ALL OF THE STAKEHOLDERS REPRESENTED. I HAVE SEEN SOME REALLY EXCITING THINGS WITHIN UPS. SOME OF THE WORK WHEN UPS DEALT WITH SMOKE AND FIRE AND SOME OF THOSE THINGS. THOSE WERE VERY GOOD JOINT ACCOMPLISHMENTS. MAYBE TRYING TO UNDERSTAND THE FRMP IS SO IMPORTANT, THAT IT IS INCLUDED IN THE ANNUAL TRAINING FOR ALL PILOTS. IS THERE A WAY TO CREATE BETTER BUY-IN AND MORE TRUST TO GIVE US BETTER REPORTING AND MORE ACCOUNTABILITY? THAT IS WHAT I'M STRUGGLING WITH HERE. WHEN YOU TALK ABOUT THE SHARED RESPONSIBILITY, IT IS A SHARED RESPONSIBILITY ON THE FRONT END, BECAUSE MY GOSH, YOU ARE ALL HERE ON THE BACKEND OF IT, AND IT A VERY SHARE -- A VERY PAINFUL SHARED RESPONSIBILITY NOW. I HAVE SEEN -- I WAS AT UPS BACK IN 2006, AND I SAW THE SICK LEAVE THAT YOU HAVE, THE ABILITY OF REST AND SICK ROOMS. WE LOOKED AT THIS FLIGHT HISTORY. THEY TOOK ADVANTAGE OF THOSE SLEEP ROOMS. MAKE THEM RESPONSIBLE. THEY TAKE ADVANTAGE OF IT. I GUESS I'M JUST STRUGGLING WITH -- THERE SEEMS TO BE A LOT OF TENSION AND FRUSTRATION WITH RESPECT TO THESE ISSUES. I DON'T UNDERSTAND IT, BECAUSE I HAVE SEEN SOME GREAT WINS. HELP ME UNDERSTAND WHY WE SEEM TO BE IN THE SITUATION WHERE IT SEEMS TO BE FRUSTRATED. I CAN HEAR THE FRUSTRATION IN YOUR VOICE, MR. SNYDER. I KNOW THAT'S DIFFICULT.

>> I CAN SAY IN A VERY POSITIVE WAY THAT THE THINGS YOU WERE TALKING ABOUT ARE BEING DISCUSSED. IT IS NOT A SLAMMED DOOR APPROACH TO ANYTHING. I CAN TELL YOU, THE STATE WORKING GROUP, WE WORK VERY WELL TOGETHER. WE SHARE INFORMATION OPENLY AND DISCUSSED TOPICS. AND I CAN TELL YOU AT THE FATIGUE ACTION GROUP LEVEL, EVERY CONCERN AND AIR CREWMAN HAS IS LOOKED THAT, BECAUSE RIGHT NOW THE COMPANY ASSUMES THE RESPONSIBILITY FROM A SAFETY PERSPECTIVE TO MAKING SURE THE SCHEDULES ARE OK.

>> I KNOW WE HAVE A FOLLOW-UP QUESTION FROM THE TECH PANEL, SO I DO WANT TO GO BACK TO THEM. DO YOU HAVE ANYTHING? OK. DR. WILSON.

>> THANK YOU. WE HAVE TALKED A LOT ABOUT PILOT MONITORING. I WANT TO GO BACK TO CLOSE THE LOOP ON TRAINING THAT IS GOING TO BE REQUIRED ON OPERATORS. YOU MENTIONED, MR. BURKE, THAT TRAINING IS GOING TO BE REQUIRED IN LOSS SCENARIOS. CAN YOU GO INTO A LITTLE BIT MORE EXPLANATION AS TO WHAT IS SPECIFICALLY REQUIRED IN THOSE LOSS SCENARIOS?

>> SURE. WE HAVE CRM ADVISORS -- WE HAVE CRM ADVISORS CIRCULATING. WE WILL BE DEVELOPING FURTHER TRAINING AS REQUIRED IN THE COMPLIANCE PERIOD. WE HAVE AN AIR CARRIER STEERING GROUP. WE HAVE WORKED WITH THE INDUSTRY . RIGHT NOW IT IS BASICALLY MODE AWARENESS, CALL OUTS. I BELIEVE WE CAN DO MORE WITH THAT AND TEACH PILOTS HOW BETTER TO MONITOR THAT MAY BE WHAT TO LOOK OUT FOR.

>> WITHIN -- AND THEN ME FIVE-NEAR -- THEN THE 5-YEAR PERIOD IS OVER, WHAT IS THE FAA DOING TO MAKE SURE THEY IMPLEMENT THESE PRACTICES?

>> SURE. WE WILL HAVE GUIDANCE. RIGHT NOW WE ARE LOOKING INTO A PROJECT THAT WOULD COMBINE THE MATERIAL INTO ONE COHESIVE DOCUMENT. WHERE THE CRM AND

THE SOP CAN SUPPORT PILOT MONITORING, SO THEY ARE NOT SEPARATE COMPONENTS. ONCE THAT TRAINING IS OUT THERE AND AVAILABLE TO THE OPERATORS, THE LOCAL FIELD OFFICES WILL HELP THEM, AND HELP EACH AIR CARRIER IMPLEMENT THAT TRAINING.

>> ARE YOU AWARE OF ANY OPERATORS OUT THERE THAT ARE MONITORING TRAINING AS A MODEL FOR OTHER CARRIERS?

>> SURE. THAT IS HOW SOME OF OUR BEST RULES, ABOUT, AND CHELATING -- IN RELATING THE BEST OPERATORS OUT THERE. I DO NOT HAVE A COMPREHENSIVE LIST. I DO KNOW THERE ARE VERY GOOD PROGRAMS OUT THERE.

>> THANK YOU. THAT'S ALL OF THE QUESTIONS I HAD.

>> DO THE PARTIES HAVE ANY REQUESTS FOR IN FOLLOW-UP? I KNOW YOU WILL WANT A BREAK. WE ARE GOING TO TAKE ONE. WE'RE GOING TO GO BACK TO MEMBER ROSEKIND FOR ONE LAST QUESTION.

>> I WILL JUST COMMENT -- IN THE LAST TWO TIMES THE REPORTS OF AND EXAMINED, 20% HAVE FATIGUE ELEMENTS. CAPTAIN SNYDER, MS. ESPOSITO, IT WOULD BE GREAT IF YOU SUBMIT THIS TO THE RECORD. IF YOU JUST WANT TO GIVE US ONE STATEMENT. WHAT DO YOU THINK YOU ARE DOING GREAT THAT REALLY NEEDS TO BE ENHANCED, AND WHERE ARE THE GAPS WHERE WE NEED TO EFFECTIVELY MANAGE FATIGUE? ONCE AND IT'S NOW. THAT WOULD BE GREAT. OR YOU COULD FOLLOW UP TO THE RECORD. WHATEVER YOU LIKE.

>> WE CAN DO BOTH.

>> WHATEVER YOU WOULD LIKE. KEEPING IT SHORT.

>> KEEPING IT SHORT, IN ORDER TO BE SUCCESSFUL, LIKE OUR VERY SUCCESSFUL ASAP PROGRAM AT UPS, WE NEED ALL STAKEHOLDERS INVOLVED AND HAVE BUY-IN FROM OUR CREW MEMBERS. WE HEARD ABOUT THE SLEEP ROOMS THAT WE HAVE IN LOUISVILLE AS A GREAT FATIGUE MITIGATION TOOL. WE NEED THEM AT EVERY SORT FACILITY FOR FATIGUE MITIGATION WHERE WE SORT. AND WE NEED TO EDUCATE THE CREW MEMBERS TO BE USING THOSE FLEET DRONES AS MITIGATION TOOLS. -- THOSE SLEEP ROOMS AS MITIGATION TOOLS.

>> THERE IS ALWAYS ROOM FOR MITIGATION, WHETHER IT BE MORE ROBUST IN A CLASSROOM OR HOME SETTING, AS YOU ALLUDED TO. WE WILL CONTINUE TO WORK WITH OUR AIR CREW TO MAKE SURE THAT THEY UNDERSTAND OUR PROGRAMS. WE DO WANT THEIR REPORTS. UPS DOES NOT WANT OUR CREWMEMBERS FLYING IN A FATIGUED STATE. WE DO TREAT EACH FATIGUE CALL IS A SEPARATE SAFETY INCIDENT. WE DO INVESTIGATE THOROUGHLY. I DO ENJOY WORKING WITH MY COUNTERPART IN THE FAA WORKING GROUP. I WOULD LIKE TO SEE THAT COLLABORATIVE APPROACH CONTINUE.

>> GREAT. THANKS.

>> THANK YOU ALL FOR YOUR PATIENCE. WE ARE GOING TO TAKE A SHORT BREAK. WE WILL RECONVENE AT 3:15.

>> IF EVERYONE COULD TAKE THEIR SEATS, WE WILL FINISH UP.

>> WELCOME BACK. I SEE THE CROWD IS THINNING OUT, BUT THANK YOU, ALL OF YOU, WHO ARE STICKING WITH US. WE WILL FINISH ARE HEARING WITH THIS LAST PANEL. WILL YOU PLEASE INTRODUCE THE THIRD PANEL WITNESSES.

>> THANK YOU, MADAM CHAIRWOMAN. WITNESS PANEL THREE IS COMPRISED OF THE FOLLOWING INDIVIDUALS TO MY LEFT LEFT. MR. JOHN HEINLEIN, MR. JEFF CHESTNUT, MR. GORDON ROTHER, MR. MATTHEW AMESBURY. TECHNICAL PANEL TO MY RIGHT MR. ROMAIN BEVILLARD, DR DAN BOWER, DR. KATHERINE WILSONAND CAPTAIN DAVID LAWRENCE PANEL LEAD. AND MS. DANA SHULZE. I NOW ASK THAT THE WITNESSES PLEASE STAND TO BE SWORN. PLEASE RAISE YOUR RIGHT HAND. DO YOU SWEAR OR AFFIRM TO TELL THE TRUTH? THANK YOU. PLEASE BE SEATED. CHAIRMAN, HERSMAN -- CHAIRMAN HERSMAN, THESE WITNESSES HAVE BEEN SWORN. I NOW TURN QUESTIONING OVER.

>> THANK YOU, MR. LOVELL. IF YOU WILL JUST GO DOWN THE ROW, GIVE ME YOUR NAME, YOUR TITLE, YOUR AFFILIATION.

>> I'M MR. HEINLEIN, DEPUTY FAA CHAIRMAN OF SAFETY.

>> GORDY ROTHER, FAA HEADQUARTERS DISPATCH INSPECTOR.

>> MATTHEW AMESBURY, INSPECTOR.

>> THANK YOU. I WOULD LIKE TO START WITH YOU, MR. ROTHER. COULD YOU JUST TELL ME WHAT THE ROLE OF A DISPATCHER IS IN THE OPERATION, THE 121 OPERATOR?

>> SURE. THE DISPATCHER IS A SOPHISTICATED CHAIRMAN. 121 REQUIRES -- 121 DOMESTIC AND FLAG REQUIRES THE OPERATOR TO EMPLOYEE DISPATCHERS TO EXERCISE OPERATIONAL CONTROL JOINTLY WITH THE PILOT.

>> WOULD USE AV DISPATCHERS HAVE ACCESS TO THE MOST CURRENT WEATHER AND AIRPORT -- WOULD YOU SAY IS FACTORS HAVE ACCESS TO THE MOST CURRENT WEATHER AND AIRPORT INFORMATION?

>> SECURITY IS AN IMPORTANT RESOURCE. SECURITY INSURERS THE DISPATCHERS AND PILOT HAVE THE MOST CURRENT INFORMATION FOR THE PLANNING AND CONDUCT OF THE FLIGHT OPERATION.

>> YOU ANTICIPATED MY NEXT QUESTION. LET ME TALK ABOUT THE RESPONSIBILITY UNDER 121 AND 535, REGULATIONS COMMONLY REFERRED TO AS JOINT RESPONSIBILITY. CAN YOU TALK TO ME ABOUT JOINT SPONSOR ABILITY FOR THE DISPATCHER. WHAT DOES THAT MEAN TO THE FAA?

>> BE DISPATCHER UNDER 121 HAS THE RESPONSIBILITY, JOINTLY WITH THE PILOTS, FOR THE PREFLIGHT PLANNING OF THE OPERATION, THE DELAY OF THE OPERATION, THE CONSTRUCTION OF THE DISPATCH RELEASE, THE REQUIRED ELEMENTS OF THE DISPATCH RELEASE. BASICALLY THEY ARE JOINTLY RESPONSIBLE TO TAKE ALL ASPECTS OF THE OPERATION AND FORMULATE THE DISPATCH RELEASE, WHICH IS BE CONDITIONS THE

DISPATCH IS TO BE OPERATED UNDER.

>> THANK YOU. YOU TOLD ME WHEN THE RESPONSIBILITIES BEGAN. WHEN DOES IT END? DOES IT AND WHEN THE PILOT SIGNS THE DISPATCH RELEASE?

>> KNOW, THE DISPATCHER HAS THE RESPONSIBILITY ONCE THE AIRCRAFT IS AIRBORNE, OR -- NO, THE DISPATCHER HAS THE RESPONSIBILITY ONCE THE AIRCRAFT IS AIRBORNE, OR IT CONTINUES IN FLIGHT. HE HAS A RESPONSIBILITY TO CANCEL A DISPATCH, JOINTLY WITH THE PILOT COMMAND. 601 REQUIRES THE DISPATCHER TO PROVIDE THE PILOT COMMAND WITH ANY WEATHER INFORMATION NECESSARY FOR SAFE OPERATION.

>> THANK YOU. WE WILL GET INTO 601 AND A LITTLE BIT AS FAR AS WEATHER DISSEMINATION. DOES THE FAA REQUIRE THAT DISPATCHERS GIVE VERBAL BRIEFINGS TO THE PILOTS?

>> OUR GUIDANCE TALKS ABOUT THE REQUIREMENTS TO CONDUCT A BRIEFING. A BRIEFING 10 BE EITHER -- CAN BE EITHER VERBALLY OR IN WRITTEN FORM. IT IS THE DISPATCHER FROM RESPONSIBILITY TO DETERMINE WHEN VERBAL BRIEFINGS WOULD BE REQUIRED. WE DO NOT LAY OUT SPECIFIC PROVISIONS FOR WHEN A VERBAL BRIEFING WOULD BE REQUIRED VERSUS A WRITTEN BRIEFING.

>> ALL RIGHT, I WILL GO DOWN TO MR. HEINLEIN. IF YOU COULD TELL ME IF UPS REQUIRES PILOTS TO VERBALLY BRIEF AS PART OF THE COMPANY POLICY?

>> THERE IS NO OBLIGATION FOR A VERBAL, THAT I KNOW OFF. IT IS JUST UNDER THE UMBRELLA OF CONSTANTLY UPDATING. IT COULD BE -- THE ORIGINAL IS ON THE RELEASE. UPDATES THEREAFTER COULD BE MESSAGES, RADIO CONTACTS. THERE IS NOTHING DELINEATED FOR THE DIFFERENCE BETWEEN A VERBAL OR WRITTEN.

>> THANK YOU. MR. ROTHER, IF YOU COULD TELL ME, IN THE CASE WHERE A DISPATCHER WOULD WANT TO TALK TO A PILOT FOR SOME REASON, COULD YOU SEND ME EXAMPLES OF WHAT A DISPATCHER WOULD CONSIDER IMPORTANT ENOUGH TO WANT TO TALK TO A PILOT?

>> IN OUR INNER GUIDANCE, WE HAVE A COUPLE OF EXAMPLES. AN EXAMPLE WOULD BE AN OPERATION WITH MARGINAL WEATHER, AND OPERATION THAT HAS AN AIRCRAFT WITH AN INOPERATIVE COMPONENT, A RESTRICTED, SHORTENED RUNWAY, THOSE KINDS OF THINGS. CONTAMINATED RUNWAYS.

>> THANK YOU. MR. AMESBURY, CAN YOU DISCUSS THE VARIOUS METHODS OF COMMUNICATION UPS USES FOR DISPATCHERS TO KEEP CONTACT WITH PILOTS?

>> YES. OUR PRIMARY METHOD IS THE BRIEFING PACKAGE, WHICH IS PREPARED WITH THE FLIGHT RELEASE AND FLIGHT PLAN, THE LATEST WEATHER AT THE TIME OF THE PRINT, ANY COMPANY INFORMATION, AIRPORT INFORMATION. WE ALSO HAVE OUR ACAR SYSTEM, OUR COMMUNICATION SYSTEM WITHIN THE AIRPLANE. WE HAVE VHF RADIO, SATCOM LINKS ON MOST OF OUR AIRPLANES.

>> IF YOU COULD START PULLING UP PAGE 27. MR. AMESBURY, LET ME STAY WITH YOU. WHAT IS DISPATCH RESOURCE MANAGEMENT?

>> DISCUSSED -- DISPATCH RESOURCE MANAGEMENT IS THE USE OF -- IT IS IMPROVING COMMUNICATIONS AMONGST ALL OF THE GROUPS TO OPERATE A FLIGHT SAFELY. WE ARE IN CONTACT WITH ALL OF THE VARIOUS DEPARTMENTS IN OUR OPERATION. MAINTENANCE, CONTINGENCY, PROOF SCHEDULING. WE HAVE SUBJECT MATTER EXPERTS FOR THE FLEET THAT WE USE. THAT IS THE PRIMARY RESOURCE MANAGEMENT THAT WE DO. WE DO IT EVERY DAY. WHENEVER WE HAVE ISSUES. WE WILL CONFER WITH THOSE DEPARTMENTS AND MAYBE EVEN GET THEM ON THE PHONE WITH THE CREW MEMBERS TO SOLVE PROBLEMS.

>> WERE THE PILOTS INCLUDED IN THAT PROCESS AS PART OF THE AS PART OF THE USERS THAT THEY ARE REACHING OUT TO?

>> YES, WE DO USE THE CREW MEMBERS TOO.

>> ON THE OVERHEAD IS AN ACCEPT FROM THE FLIGHT OPERATIONS TRAINING MANUAL, AND I UNDERSTAND THAT THE TRAINING FOR DISPATCHERS IS REFERENCED HERE, CORRECT?

>> THE REQUIREMENTS, YES.

>> THE LAST BULLET IS THAT BETTER INVERTEBRATES -- INTERFACE IS OUTLINED, WHAT DOES THIS MEAN TO YOU?

>> BETTER INTERFACE WITH THE PIC, IT MEANS CONTACT WITH THE PIC. GENERALLY WE TEACH REMARKS OF THE FLIGHT RELIEF TO GIVE THEM ADDITIONAL INFORMATION THAT DOESN'T COME WITH THE BRIEFING PACKET. IF WE CANNOT COVER INFORMATION THAT WAY, WE CAN CONTACT THEM ON THE PHONE. THAT IS THE INTERFACE.

>> EXPLAINED THE REMARKS YOU'RE TALKING ABOUT?

>> WE PREPARE A FLIGHT RELEASE, IT PRINTS WITH THE FLIGHT PLAN, AND A BRIEFING PACKAGE, IT INCLUDES WEATHER UNKNOWNS. WE WILL ALSO KNOW IF THERE'S INFORMATION THAT IS NECESSARY TO THE CREW THAT IS NOT GOING TO BE INCLUDED IN THE BRIEFING PACKAGE. WE CAN TYPE OF THAT INFORMATION IN THE REMARKS SECTION OF THE RELEASE, IT MAY BE A SIMPLE NOTE OF A PERFORMANCE THAT WE HAD TO MAKE ADJUSTMENTS TO THE FLIGHT LAND FOR. THIS IS NOT SOMETHING THAT WE WOULD INCLUDED THE BRIEFING PACKET, BUT WE CAN INFORM THE CREW OF IN THE REMARKS.

>> ARE THEY AND ARE DEPENDENT ON THE OPERATION?

>> NO.

>> THE LONGER RUNWAY WAS CLOSE UNTIL 4:00 A.M. IT TILL 5:00 A.M. IN THE MORNING OF THE DAY OF THE ACCIDENT. THE TIME OF THE ACCIDENT WAS AT 4:50 A.M. DO DISPATCHERS HAVE THE AUTHORITY TO DELAY FLIGHTS?

>> YES.

>> HOW DO THEY USE THAT AUTHORITY?

>> WE CAN DELAY THE RELEASE TIME ON THE FLIGHT PLAN, WE CAN ALSO DELAY WITH ATC, AND CONTACT THE CREW. CURRENTLY, IF WE WERE TO GET A DELAY, IF A DISPATCHER WANTED TO DELAY THE FLIGHT, HE WOULD INFORM THE BRIDGE SUPERVISOR, WHO WOULD HAVE THE CONTINGENCY DEPARTMENT BUT THE DELAY INTO THE SYSTEM, AND THIS WOULD UPDATE THE TIMES FOR THE FLIGHT. IF THE CREW HAD ALREADY RECEIVED THE FLIGHT RELEASE, IF THE DELAY HAPPENED AFTERWARD, HE WOULD HAVE TO CONTACT THE GROUP, -- CONTACT THE CREW, VERBALLY CONTACT THE CREW.

>> IS THERE ANY SORT OF VERBAL HIERARCHY? WITH THE -- WOODY PRIMARY CLOSED RUNWAY BE CONSISTENT WITH A DELAY POLICY?

>> IT WOULD NOT. IT IS UP TO THE JUDGMENT OF THE THATCHER -- OF THE DISPATCHER AREA THERE IS NO SPECIFIC GUIDANCE FOR THAT.

>> WE LEARNED THROUGH THE INVESTIGATION THAT THE DISPATCHERS USE THE LEAD OUT FLIGHT -- LEODDO FLIGHT PLANNING SYSTEM. CAN YOU EXPLAIN HOW THAT WORKS?

>> IT IS A FLIGHT PLANNING TOOL THAT IS -- SORRY, LEFT ON LUFTHANSA PROVIDES ALL OF THE FLIGHT PLANNING, EVERYTHING IS INGESTED INTO THE FLIGHT PLANNING SYSTEM. IT ALLOWS US TO ASSIGN AND SCHEDULE FLIGHTS TO INDIVIDUAL DISPATCHERS AT INDIVIDUAL DESKS. IT HAS A FUNCTIONALITY THAT ALLOWS US TO MONITOR THE FLIGHT AFTER THE PAPERWORK IS THAT -- SENT.

>> PLEASE PULL THE MICROPHONE CLOSER.

>> SORRY. WE HAVE AN AUTOMATIC MONITORING SYSTEM THAT BASICALLY PROVIDES INFORMATION WHILE THE AIRPLANE IS IN FLIGHT. IT ALLOWS US THE ABILITY TO PROVIDE COMPANY POLICIES, COST INDEXES, SPECIFIC ROUTES. THOSE ARE SOME OF THE GENERAL ITEMS THAT IT DOES.

>> SPECIFIC TO SOME OF THE PAPERWORK, I WOULD TO GET A COUPLE OF QUESTIONS ANSWERED AS FAR AS WHAT WE NOTICED IN THE DISPATCH PAPERWORK. THERE WAS AN AREA IN THE RELEASE, IN THE BRIEFING AREA OF THE PAPERWORK THAT SAID PLANNED RUNWAYS. THERE WAS A PLAN RUNWAY FOR DEPARTING LITTLE, AND BIRMINGHAM 18 AS THE INTENDED RUNWAY. DOES THE DISPATCHER CHOOSE THAT?

>> I BELIEVE IT IS THE DECENT BATCH -- THE DISPATCH. LEDO HAS THE ABILITY TO LOOK AT THE AIRPORT, THE RUNWAY, AND WILL IDENTIFY WHICH ONES ARE AVAILABLE. IT IS UP TO THE DISPATCHER TO DETERMINE IF THAT IS THE RUNWAY HE WANTS TO USE.

>> MR. ROTHER TALKED ABOUT THE PIC REQUIRING TO RECEIVE A REGULARITIES. ARE YOU FAMILIAR WITH THAT REGULATION? MR. CHESTNUT? 121 601 IS THE REGULATION THAT TALKS ABOUT THE DISPATCHERS ROLE IN PROVIDING INFORMATION TO THE PIC. ARE YOU FAMILIAR WITH THAT REGULATION?

>> YES.

>> WOULD AN IRREGULARITY IN A CHARTED APPROACH TOWARD AN AIRPORT CONSTITUTE A COMMAND TO THE PILOT UNDER 601?

>> IF THAT WAS KNOWN, IT WOULD CERTAINLY BE SOMETHING THAT YOU WOULD WANT TO CALL OUT.

>> DURING THE OPERATIONS GROUP INVESTIGATION, WE HAD AN OPPORTUNITY TO VIEW THE -- INTERVIEW THE ACCIDENT DISPATCHER OF AND HE TOLD US THAT HE WAS AWARE OF THE BIRMINGHAM APPROACH TO ONE -- TO BIRMINGHAM 18, AND HE DID NOT THINK THAT IS A VALID APPROACH. IT WAS NOT OPERATE THAT NIGHT -- IT WAS NOT AUTHORIZED AT NIGHT ACCORDING TO THAT CHARGE. WHAT DID UBS DUE TO ENCOURAGE OPEN VACATIONS AS REGARDS TO THESE IRREGULARITIES?

>> I THINK WE HAVE TO GO BACK, THE DISPATCHER DID HAVE A VIABLE APPROACH, AND HE DID NOT PLAN ON USING 18 BECAUSE OF THE NOTE THAT WAS ON THE BOTTOM OF IT BECAUSE IT SAID IT WAS NOT AUTHORIZED AT NIGHT. HE WAS UNAWARE THAT THAT NOTE WAS THERE IN ERROR AT THAT TIME.

>> THE LOCALIZER?

>> YES.

>> HE WAS USING THE APPROACH FOR THE LEGALITY OF THE DISPATCH?

>> THAT IS WHAT HE INDICATED.

>> MY QUESTION IS, WHAT RESPONSIBILITY UNDER 60 WHAT DOES HE HAVE TO CONTACT BE POLITE -- 601 DOES HE HAVE TO CONTACT THE PILOT?

>> THERE IS NO REQUIRMENT. WE CAN VERBALLY COMMUNICATE ANYTIME WE DEEM IT NECESSARY. THERE ARE OTHER ITEMS THAT MUST BE COMMUNICATED DIRECTLY AND THOSE REVOLVE AROUND MAINTENANCE ITEMS AND CHANGES AFTER DISPATCH. THE EVENT OF ONLY HAVING ONE RUNWAY AVAILABLE IS NOT UNCOMMON. EVEN A VERY BUSY AIRPORT COULD HAVE ONE OPERATIONAL RUNWAY AND OFTEN TIMES WE FIND THAT THE RUNWAY THAT WE ANTICIPATE WE ARE GOING TO USE IS NOT THE RUNWAY THAT THE CREW GETS BECAUSE OF CHANGES. IN ANOTHER ITSELF, THAT IS NOT AN INDICATED THAT THEY WOULD HAVE HAD TO NOTIFY THE CREW OF THAT.

>> THE DISPATCHER TOLD US THAT HE WAS NOTICING IT WAS NOT AUTHORIZED AT NIGHT, BUT THERE WAS ANOTHER NOTE THAT MADE IT LEGAL. THIS WAS THE CHART THAT THE CREW HAD, WITH THEIR NOSE PROCESS THAT THE DISPATCHER HAD TO NOTIFY A SUPERVISOR, FLIGHT CONTROL, SOME SUPPORT PERSONNEL THAT HE SEES AN ANOMALY IN APPROACHED CHART?

>> I DO NOT SEE -- ONLY BE SOLVED THAT AS AN ANOMALY, I BELIEVE YOU THOUGHT AS A OPUS RESTRICTION ON THAT FLIGHT -- A SIDE A RESTRICTION ON THAT FLIGHT. HE ELECTED TO PLAN BASED ON THAT.

>> THIS IS THE ONLY OTHER APPROACH REMAINING AVAILABLE TO THE CREW. THE MINIMUMS FOR THIS, AND THE MINIMUMS AND ALTITUDE ARE STILL A MINIMUM OF 1200 FEET, WHICH WAS ABOUT 506 FEET ABOVE THE GROUND. THE FORECASTED WEATHER ABOVE ARRIVAL WITH A CEILING OF 400 FEET, WHICH WOULD PUT THE CEILING BELOW

THE MINIMUM PERCENT OUT TO -- ALTITUDE. WHAT ACTIONS WOULD BE EXPECTED WHEN THE CEILINGS ARE BELOW THE DECENT MINIMUMS FOR A PLAN RUNWAY?

>> THE APPROACH IS PREDICATED ON DISABILITY -- VISIBILITY. THE FAA CREATE THE REGULATIONS UNDER WHICH A CEILING MUST BE CONSIDERED. THE FORECAST THAT THE FLIGHT WAS RELEASED ON INDICATED THAT THERE WAS A BROKEN LEVEL AT 400 FEET, SO WE DID EXPECT IFR CONDITIONS AT THAT POINT.

>> WHAT WOULD THE ACTIONS OF THE DISPATCHER BE AT THAT POINT IF HE NOTICED CEILINGS THAT LOW?

>> THE DOCUMENT ITSELF IS A COMMUNICATION. THE FLIGHT CREW EXCEPT THAT, AND BOTH THE DISPATCHER AND THE CAPTAIN AND KNOWLEDGE DIDD IT. THERE WAS A PLANNING PHASE, SO THE DISPATCHER DID SEE THAT THE WEATHER WAS MARGINAL, AND THERE COULD BE A GOOD CHANCE THAT WE WOULD HAVE TO GO ELSEWHERE. AN ALTERNATE ROUTE WAS ADDED TO THE FLIGHT RELEASE, WHICH WAS ASLAN TIME I BELIEVE. -- AT LANDS TIME I BELIEVE.

>> WAS THERE ANYTHING IN THEL KLELEDO SYSTEM THAT ANNOUNCES TO THE DISPATCHER THAT HE HAS A CEILING BELOW THE MINIMUM THRESHOLD AT THE AIRPORT?

>> THERE IS AN ALERT IN THE INITIAL PLANNING PHASE. THERE WOULD ALSO BE AN ALERT AFTER THAT. ALL OF THE INFORMATION IS ADJUSTED INTO -- INGESTED INTO LEDO, AND HOW MANY OF THOSE WEATHER CONDITIONS MEET THAT MINIMUM THRESHOLD, IT IS GOING TO TELL YOU THAT THERE IS AN ISSUE HERE, GO TAKE A DEEPER LOOK AT THIS.

>> MR. AMES VERY, IF I COULD ASK -- AMESBURY, WHAT RESOURCES DOES A DISPATCHER HAVE AS HE PLANS THESE LIGHT PLANTS -- FLIGHT PLANS.

>> THE SAME WHETHER THAT THINK RECEIVES IN THE BRIEFING PACKAGE -- WHETHER THEIR THAT THE CREW RECEIVES IN THE BRIEFING PACKAGE. WE DO HAVE APPLICATIONS. WE HAVE WSI, LEGAL OBLIGATIONS -- MULTIPLE APPLICATIONS THAT WE USE.

>> RING IT UP TO AWFUL, PAGE 35 -- BRING IT UP TO OUR FRONT, PAGE 35. THIS WAS THE WEATHER FOR 3:53 A.M. IN THE MORNING IN BIRMINGHAM. IT SHOWS AT THE END OF THE SEQUENCE REPORT THAT THERE WAS AN AREA CALLED REMARKS. COULD YOU READ WHAT THOSE REMARKS MEAN?

>> THE REMARK WAS BY THE TOWER --CEILING AT VARIABLE 300 FEET. THESE ARE AND BY A CERTIFIED WEATHER OBSERVER AT THE STATION. THIS OBSERVATION WAS PUT OUT BY AN ASOS, VANDERMARK IS A PHYSICAL PERSON AT THE AIRPORT THAT IS MAKING OBSERVATION THAT IS BEYOND THAT.

>> ARE THESE REMARKS IMPORTANT? THE THEY -- COULD THEY CONTAIN IMPORTANT INFORMATION FOR THE PILOT?

>> YES THEY COULD.

>> COULD YOU ELABORATE ON THAT?

>> IN THIS PARTICULAR CASE, CONSIDERING THE TIME, I AM NOT SURE. I DO NOT HAVE ALL OF THE WEATHER DATA. BUT IF YOU HAD AN APPROACH IN THUNDERSTORMS ABOUT, THE AUTOMATIC OBSERVATION MAY NOT INFORM YOU THAT. THE METEOROLOGIST AT THE AIRPORT MAY SEE ENCROACHING WEATHER, AND PUT THAT IN HIS REMARKS.

>> LET ME GO TO MR. ROTHER FOR A MINUTE. HOW IMPORTANT ARE REMARKS?

>> FIRST OFF, REMARKS ARE NOT ALWAYS ON THE PLAN, BUT WHEN THEY ARE THERE, PAST LEGAL INTERPRETATIONS THAT WE HAVE IN OUR HANDBOOK STATE THAT THEY ARE IMPORTANT, AND THEY ARE CONTROLLING, AND THEY NEED TO BE CONSIDERED WHEN MAKING A DETERMINATION.

>> WOULD YOU LIKE TO ELABORATE ON THAT? ADD ANYTHING TO THAT IN THEIR IMPORTANCE?

>> BASICALLY WHAT MR. ROTHER SAID IS CORRECT, AND THERE COULD BE MANY TYPES OF REMARKS. SOMETIMES IT MIGHT THE A CEILING , AND IF IT WERE VERY CRITICAL TO THAT APPROACH, THERE WERE OTHER THINGS THAT FOR EXAMPLE THEY COULD PUT ON THERE, LIKE VOLCANIC ASH NORTH OF THE AIRPORT, OR SOMETHING. THERE ARE MANY THINGS THEY COULD PUT THERE, OBSERVATIONS THAT WOULD BE VERY CRITICAL TO A CREW FOR THEIR SAFETY, .

>> THANK YOU. CAN YOU BRING UP PAGE FOUR? MR. CHESTNUT, OUR REVIEW OF THE PILOT BRIEFING PAPERWORK SHOWED THAT THE TOWER DID NOT INCLUDE PORTIONS OF REMARKS IN ANY PORTION OF THE PAPERWORK. THIS WAS A WORK ORDER FROM UPS TO MOVE THE REMARKS FROM THE LEDO SYSTEM. GET ELABORATE WHY THEY WANTED TO REMOVE THE REMARKS?

>> THERE IS A SIGNIFICANT BACK STORY TO THIS.

>> PLEASE SUMMARIZE.

>> FIRSTLY I NEED TO START OFF I SAYING -- BY SAYING THAT REMARKS ARE ONLY PRESENT IN THE U.S., CANADA, AND MEXICO WHEN THEY ARE PUBLISHED. IT IS NOT THE STANDARD FOR THE REST OF THE WORLD. THE REST OF THE COUNTRIES OUTSIDE OF THE U.S. A SICKLY DO NOT PROVIDE REMARKS. THERE ARE SOME VARIATIONS THAT THE U.S. DOES NOT COMPLY WITH. THE REMARKS WERE NEVER REMOVED FROM LEDO. LEDO IS COMPLIANT WITH THE DISTRIBUTION. WHERE TO GO ALL THE WAY BACK TO 2004 TO UNDERSTAND. WHEN WE ORIGINALLY ACQUIRED LEDO, WE DID ASK THEM FOR A SUPPLEMENTAL WEATHER FEED THAT WOULD PROVIDE THE DOMESTIC WITH REMARKS, AND THEY WERE ABLE TO PUT THE I.T. SOLUTION TOGETHER FOR US THAT WE PAY THEM FOR. WE WERE ALSO IN DEVELOPMENT FOR AN IN-FLIGHT MONITOR, AND ENHANCED IMPLANT MONITORING -- IN-FLIGHT MONITORING TOOL THAT GAVE THE CREW AND THE DISPATCHER A GREAT DEAL OF SITUATIONAL AWARENESS AND WAS ABLE TO PUSH INFORMATION ABOUT THE DISPATCHER AND THE CREW WE NEEDED -- WHEN NEEDED. THE WEATHER INFORMATION WAS MAKING DUPLICATE ENTRIES BUT THEN IT WAS UP TO DURING WHAT WAS REALLY IMPORTANT COMMAND WHAT WE DECIDED TO DO WAS TO GO BACK AND SAY HOW CAN YOU FIX THIS? THEIR SOLUTION WAS TO TURN THIS SUPPLEMENTARY FEED OFF. THAT IS WHAT WE DID. AT THE TIME, IT WAS VETTED THROUGH THE APPROPRIATE VERSATILE VIA THE VICE PRESIDENT OF OPERATIONS, THE DIRECTOR OF

OPERATIONS, AND WE ELECTED TO GO DOWN THAT PATH. ONE OF THE PRIMARY REASONS WE DID THAT WAS THAT IT WAS OUR ANTICIPATION THAT IT WOULD CONTAIN THOSE REMARKS IF THEY WERE DEEMED RELEVANT. THAT IS THE GUY DOES THAT THEY HAVE, THAT THEY MUST FEEL THAT THEY ARE RELEVANT.

>> YOU DID MENTION THAT YOU HAD VETTED THIS THROUGH SOME PROCESS WITH FLIGHT OPERATIONS? WERE THEY COGNIZANT OF THIS CHANGE?

>> YES. THE FLIGHT MANAGER WAS AWARE, AND WAS ONE OF THE SIGNATORIES, AS WELL IS ONE OF THE DIRECTOR OF OPERATIONS, AND THE VICE PRESIDENT OF OPERATIONS.

>> I KNOW YOU'RE ON THE DISPATCH SIDE, BUT TO YOUR DOLLARS, WITH THIS INFORMATION DISSEMINATED AT UPS TO THE PILOTS THAT THIS INFORMATION WAS BEING REMOVED?

>> I WAS NOT AWARE OF IT MYSELF. IT JUST CAME ABOUT IN 2011, IT IS ONE OF THOSE THINGS THAT IF YOU DO NOT SEE REMARKS, YOU DO NOT NECESSARILY MISSED THEM. YOU WOULD HAVE TO USE THE SYSTEM ALL THE TIME TO BE AWARE OF IT ARE. WE HAD NO NOTICE OF THAT.

>> THAT IS INTERESTING. I WANT TO EXPAND ON THAT IF I COULD. SHOULD THE FAA THE APPRISED OF THIS, SHOULD IT BE NOTIFIED?

>> YES, WE SHOULD HAVE BEEN. I THINK THEY HAD SOME QUESTIONS AS TO WHETHER OR NOT, IN APRIL THAT IT WASN'T BECAUSE OF THE STANDARD, BUT FAA AND I KEIO DID NOT ALWAYS MATCH. IF THEY HAD COME TO MEAN FOR A REALLY, I WOULD'VE HAD TO RESEARCH IT, AND I PROBABLY WOULD HAVE GONE TO GORDON ROTHER AND OTHER PEOPLE TO MAKE SURE THAT IT WAS THERE. I DO NOT KNOW WHAT ELSE TO SAY.

>> ARE YOU AWARE OF ANY OTHER OPERATORS IN THE UNITED STATES DOMESTICALLY THAT USE THE LEDO SYSTEM?

>> ONE OTHER OPERATOR, AND IT IS A SMALL ONE. THERE ARE NOT MANY CARRIERS IN NORTH AMERICAN THAT USE IT.

>> WOULD IT BE FAIR TO SAY THAT THERE ARE FOREIGN CARRIERS OPERATING IN THE UNITED STATES UNDER THE PROVISIONS OF 129?

>> IT WOULD BE.

>> ONE LAST TIME, IF YOU COULD PULL UP EXHIBIT TWO, PAGE 4. WE ARE TO SEE THE WEATHER THAT THE CREW REQUESTED WHILE THEY WERE IN ROUTE TO BIRMINGHAM. THE WEATHER CAME UP -- HAVE YOU SEEN THIS FORMAT BEFORE?

>> IT IS A LITTLE TOUGH TO READ FROM HERE.

>> WHAT IT IS, IN THERE, THE TOP LINE BASICALLY DUPLICATES THE 353 WEATHER THAT THEY RECEIVED. HOWEVER, THIS CALLS FOR 8000 FOOT -- FOR A THOUSAND FOOT OVERCAST. WHAT IS THE SOURCE OF WEATHER INFORMATION THAT POPULATES THE FIELD THAT GOES TO THE PILOTS?

>> THE WEATHER SOURCE IS FROM LEDO, ULTIMATELY FROM MULTIPLE SOURCES, THE TEAM AT THE NATIONAL WEATHER SERVICE BEING ONE OF THOSE.

>> THE LEDO SYSTEM THAT CREATES THE BRIEFING PAPERWORK FOR THE PILOTS PRIOR TO LEAVING DOES NOT HAVE REMARKS IN THE PAPERWORK.

>> CORRECT.

>> THE ONBOARD REQUEST ALSO DOES NOT HAVE REMARKS, CORRECT?

>> CORRECT.

>> YOU MIGHT HAVE ANSWERED IT, BUT LET ME ASK, HOW IS A PILOT, WHEN HE IS AIRBORNE, GOING TO GET INFORMATION LIKE REMARKS THAT MAY CONTAIN IMPORTANT INFORMATION LIKE VARIABLE SEALING THAT WE SAW IN THAT WEATHER REPORT RIGHT THERE? HOW DO THEY GET THE REMARKS?

>> OUR FLIGHT CREWS ARE TRAINED, WHEN WE DISPATCH BASED ON THE FORECAST, THE AREA WHE EATHER IS INFORMATIONAL, AND THEY CAN CALL IT UP ANYTIME THEY WANT. IF THERE ARE ANY INDICATIONS, ANY REMARKS, THEY WILL BE AVAILABLE FROM THERE. IF THE FLIGHT CREW REQUESTS THEN THEY CAN FORWARD THEM FROM THERE.

>> WOULD YOU LIKE TO EXPAND?

>> IN ORDER FOR THE CREW TO GET IT, THE DISPATCH CREW WOULD HAVE TO SEND IT TO THEM FROM ANOTHER SYSTEM.

>> THAT WOULD ASSUME THAT THE CREW IS MAKING THE REQUEST TO HAVE THE REMARKS SENT TO THEM, CORRECT?

>> CORRECT.

>> IF THE DISPATCHER NOTICED A REMARK THAT HE THOUGHT WAS PERTINENT, AND WHILE HE WAS LOOKING AT ANOTHER SYSTEM HE WOULD DO THAT ON HIS OWN, IF HE FELT THERE WAS A SAFETY OF FLIGHT INFORMATION, HE WOULD DO THAT ON HIS OWN IF HE NOTICED IT?

>> WE ARE GOING TO PULL UP THE NOTICE THAT WAS BROADCAST TO THE CREW IN JUST A MOMENT. WHILE SHE IS PULLING THAT UP, MR. HEINLEIN COULD YOU TELL ME THE REVIEW PROCESS THAT THE FAA IMPLEMENTED AT UPS?

>> ACTUALLY, I CANNOT, THEY HAD LEDO IN OPERATION BEFORE THE START OF MY EMPLOYMENT WITH THE FAA AREA I STARTED IN THAT OFFICE IN 2009. THEY ARTY HAD -- ALREADY HAD IT DEPLOYED THERE.

>> IS THAT SOMETHING THAT YOU REVIEW ON A REGULAR BASIS?

>> MR. ROTHER COULD PROBABLY ANSWER THIS MORE ELOQUENTLY THAN I, BUT WE DO NOT APPROVE A SYSTEM PER SE. THEY TELL US WHAT THEY ARE GOING TO USE COMMAND

WE LOOK AT THE ACCURACY OF THE SYSTEM, AND WE LOOK AT THE VARIOUS ASPECTS OF IT FOR ANY PROBLEMS. WE DO NOT HAVE ANY OVERSIGHT OVER A FLIGHT PLANNING SYSTEM. IF WE HAVE SHORTCOMINGS, WE WILL ADDRESS THOSE, AND THROUGH THE PROCESS THEY ARE MANY QUESTIONS IN PERFORMANCE INSPECTION THAT ADDRESS PROBLEMS LIKE THAT. I HAVE NOT RUN INTO ANYTHING OF THAT NATURE, ANY SHORTCOMINGS IN MY INSPECTIONS.

>> WHEN WE ENTERED VIEW DO PREVIOUSLY COMMUTER TOLD US THAT UPS WOULD NOT DISPATCH A FLIGHT WITHOUT THE LEDO SYSTEM, AND THEY WOULD RATHER SHUT DOWN OPERATION WITHOUT -- AND OPERATION THAN WORK WITHOUT THE SYSTEM.

>> THEY WOULD DO IT IN A VERY LIMITED WAY ON SOME OF THE DOMESTIC FLIGHTS. I THINK THEY WOULD MOVE SOME OF THEIR MORE IMPORTANT FLIGHTS, BUT THEY WOULD BE SEVERELY CUT BACK IN THEIR NORMAL OPERATION. THEY WOULD NOT WANT ANY OF THE FLAG FLIGHTS AT ALL.

>> WHAT DOES THIS INVOLVE? TAKING A PENCIL TO PAPER AND DOING THE FLIGHT RELEASED BY HAND?

>> MR. CHESTNUT COULD PROBABLY ANSWER THAT EXACTLY. IT IS NOT ANY SOPHISTICATED SYSTEM BY ANY MEANS. IT IS A ROUGH WAY OF FIGURING, A CONSERVATIVE NUMBER FOR RELEASING THE FLIGHT. I BELIEVE THAT YOU WOULD HAVE TO RFFAX WEATHER AND THINGS OF THAT NATURE.

>> YOU ARE LOOKING AT HIM, SOMEONE TO ASK YOU, IS THIS SOMETHING THAT THE DISPATCHES ARE TRAINED? HOW TO MANUALLY DISPATCH A FLIGHT? AND DO YOU OBSERVE THAT?

>> I HAVE SEEN THE OF TRAINING -- THE TRAINING IN THEIR BASIC AND INITIAL TRAINING. I HAVE NOT OBSERVED IT IN THE RECURRENT. THEY GO OFFVER MANY TOPICS IN THE RECURRENT, AND I'VE NOT SEEN A MODULE ON THAT FLIGHT PLANNING SYSTEM. I HAVE OBSERVED THEM SOMETIMES WHEN THEY WILL SHUT DOWN THAT OFFICE IF THEY HAD AN EMERGENCY, AND THEY WILL SET UP ANOTHER DISPATCH OFFICE. I HAVE OBSERVE THEM DOING THAT. THAT IS THEIR MANUAL BACKUP IF THEY LOST THE BUILDING. LEDO HAS ALWAYS BEEN SO STABLE, IT IS A VERY STABLE SYSTEM OF IT WILL GO DOWN FOR SHORT TIMES, AND THERE ARE BANNERS THAT THAT WILL TELL THE DISPATCHER NOT TO PULL THE RELEASE RIGHT NOW, IT WILL BE BACK WITHIN A CERTAIN AMOUNT OF MINUTES OR AT MOST A HALF AN HOUR. THEY CAN STILL FOLLOW, AND USE ALL OF THEIR OTHER SYSTEMS.

>> THOSE UPS TRAINERS, DO THEY KNOW HOW TO DISPATCH A FLIGHT MANUALLY?

>> NO. IF THE FLIGHT PLANNING SYSTEM WENT DOWN, THE AREA OPERATION WOULD STOP. IT IS A VERY LABORIOUS PROCESS TO DO A MANUAL FLIGHT PLAN. I DO NOT SEE HOW THAT WOULD HAPPEN.

>> THE ABILITY IS IN YOUR MANUALS?

>> THAT IS CORRECT. IN OUR FLM, MANUAL FLIGHT RELEASE, NOT A FLIGHT PLAN, JUST A RELEASE, THEY ARE ABLE TO DO THAT.

>> IT IS NOT TRAINED, OR JUST TALKED ABOUT?

>> JUST TALKED ABOUT.

>> THAT LEADS ME TO MY NEXT QUESTION. WHEN A CARRIER THAT IS OPERATING WITH THESE SOFTWARE PROGRAMS AND SUCH. ARE THERE ANY FAA INITIATIVES LOOKING AT CONCERNS REGARDING OVER RELIANCE ON AUTOMATION BY DISPATCHERS?

>> AT THIS TIME, WE HAVE NOT FORMALIZED ANY PROGRAM TO LOOK AT AUTOMATION RELIANCE OR OVERRELIANCE IN THIS PROGRAM. WE HAVE NOTHING RIGHT NOW.

>> GOING BACK TO THE MANUAL DISPATCH, HOW DO YOU KNOW THAT IF IT IS IN THEIR MANUAL, AND IN THEIR GARDENS, HOW DO YOU KNOW THEY ARE PROFICIENT?

>> IT WOULD BE ONE OF THOSE THINGS THAT THEY WOULD ACTUALLY TAKE OUT THEIR MANUAL AND READ HOW TO DO IT. THEY WOULDN'T JUST DO IT BY ROTE . THIS IS SOMETHING THAT IS INHERENT TO SO MANY DIFFERENT DISPATCH OFFICE, THAT WHEN YOU LOSE YOUR MAIN FLIGHT PLANNING TOOL, YOU'RE SHUTTING DOWN THE OPERATION. YOU'VE A COUPLE FLIGHTS BECAUSE YOU HAVE TO, BUT YOU'RE BASICALLY OUT OF BUSINESS WHEN YOU LOSE THE MAIN SYSTEM. IT IS A ROAD THAT THEY DO NOT CODE UP -- GO DOWN.

>> I ASKED FOR A MORE GLOBAL PERSPECTIVE ABOUT OVERRELIANCE ON AUTOMATION, BUT LET ME ASK YOU AS FAR AS UPS IS CONCERNED. IS THE CARRIER DOING ANYTHING TO ENSURE THAT THEIR DISPATCHERS ARE NOT OVERRELIANCE ON THE AUTOMATION?

>> THE AUTOMATION IS THERE, AND WE USE IT TO THE DEGREE YOU DO YOU DO USE IT. I DO NOT THINK THERE IS A OVERRELIANCE OF AUTOMATION, DISPATCHES VERY COMPLICATED, IT IS THE GLOBAL UNDERTAKING. THE DISPATCHER IS INVOLVED THROUGHOUT. THERE OBVIOUSLY HAS TO BE A GREAT DEAL OF INFORMATION THAT IS FED INTO A TO BRING THAT INFORMATION TO THE DISPATCHER. I DO NOT SEE THAT WE HAVE A PROBLEM WITH AUTOMATION BEING TAKEN OVER FOR THE DISPATCHER ROLE.

>> THAT IS ALL THE QUESTIONS I HAVE.

>> I JUST HAVE ONE CLARIFYING QUESTION. MR. AMESBURY, REGARDING THE JUDGMENT OF THE DISPATCHER WHEN ONE RUNWAY IS CLOSED, WOULD IT BE UP TO THE IS THAT YOUR TO -- WOULD IT BE UP TO THE DISPATCHER TO DELAY, OR UTILIZES JUDGMENT?

>> LET'S USE THE EXAMPLE HERE, THE DISPATCHER HAD AN AVAILABLE APPROACH. THE CEILING WAS FORECAST TO BE LOWER THAN THE DECISION HEIGHT FOR THAT APPROACH. TYPICALLY, WE WOULD NOT DELAY FOR THAT REASON. IF THERE WAS SOMETHING ELSE, LIKE WIND, OR IF THERE WAS SOME OTHER FACTOR ON TOP OF THAT THAT WOULD MAKE IT MORE DANGEROUS FOR THE CREW TO COME DOWN TO THAT LEVEL BEFORE EXECUTING THIS APPROACH, THEY WOULD DELAY IN THAT CASE. IF THERE WERE APPROACHING THUNDERSTORMS, OR SOMETHING LIKE THAT, IT IS FAIRLY COMMON FOR US TO DO THAT.

>> I HAVE NOTHING ELSE.

>> MADAM CHAIRMAN, THAT IS ALL THE TECHNICAL PANEL HAS AT THIS TIME.

>> THANK YOU.

>> THANK YOU. WE HAVE A FEW QUESTIONS FOR MR. CHESTNUT. AS FAR AS THE LEDO WORKAROUND, IT WAS DONE AUGUST 11TH, AS FAR AS THEIR MARKS BEING REMOVED? -- THE REMARKS BEING REMOVED?

>> YES. IT WAS AROUND 12, SO IS IT POSSIBLE THAT HE WAS UNAWARE THAT THE REMARKS WERE NOT GOING THROUGH THE LEDO TO THE PILOT?

>> IT IS POSSIBLE.

>> IS THERE A REQUIREMENT FOR YOU TO DO A FLIGHT DECK OBSERVATION?

>> YES OR. -- SIR. WE DO A MINIMUM FIVE HOURS A YEAR FLIGHT DECK OBSERVATION, AND THAT IS ALSO CRM.

>> MR. ROTHER, 121.533, AUTHORITY WITH THE CAPTAIN. IF THE CAPTAIN DEVIATES WITH THE FILING -- DEVIATES FROM THE FLIGHT PLAN COMMITTEE -- IS HE REQUIRED TO ALERT THE DISPATCHER?

>> CAN YOU CLARIFY?

>> IF THE DISPATCHER GIVES HIM A ROUTE FROM POINT A TO POINT C, AND HE TAKES AN INDIRECT ROAD, WHERE IS HE REQUIRED TO LET THE DISPATCHER KNOW THAT HE IS SKIPPING B?

>> DEVIATIONS QUITE OFTEN WILL REQUIRE ADDITIONAL FUEL. IF THE PILOT THE VEHICLE THINK YOU SHOULD FOLLOW HIS COMPANY GUIDANCE AS TO WHAT MAXIMUM DEVIATION IS ALLOWED. WE HAVE GUIDANCE AND OUR VALUE CIRCULAR, FOR OPERATIONAL CONTROL, THAT DISCUSSES THAT DEVIATION AND THAT CONTINUED COORDINATION BETWEEN THE PILOT AND THE DISPATCHER.

>> BUT HE IS NOT OBLIGATED TO SAY IF HE GIVES ONE OF HIS WAYPOINTS AND GOES ON FROM THERE TO MAKE A SHORTER DISTANCE? IT IS HARD TO SAY. IF YOU SKIP THE WAYPOINT WE MIGHT BE OVER YOUR LANDING WEIGHT. THAT IS SOMETHING THE PILOT NEEDS TO EVALUATE IN ACCORDANCE WITH COMPANY GUIDELINES.

>> MR. AMESBURY, ACTUALLY, MR. TEST CHESTNUT --HOW MANY FLIGHTS DOES THE DISPATCHER RELEASED DURING A SHIFT?

>> IT DEPENDS ON DOMESTIC OR INTERNATIONAL. WE HAVE WORK AGREEMENTS WITH THE TW, BUT JOE DONNELLY -- GENERALLY SPEAKING DOMESTICALLY IT WOULD BE IN THE LOW 20'S, AND INTERNATIONALLY IT WOULD BE EIGHT OR NINE FLIGHTS.

>> WITH THE WORK LOAD THAT IS THEIR RIGHT NOW, -- THERE RIGHT NOW WOULD IT BE FEASIBLE TO GET BRIEFS TO EVERYONE I'LL IT AND TO DO TASK MANAGEMENT? EVERY PILOT ON EVERY RELEASE THAT YOU WROTE? UPS FLIGHT 1354

>> I WOULD HAVE TO LOOK AT THAT, MY ASSUMPTION WOULD BE THAT IT WOULD NOT BE ABLE TO BE DONE WITH THE NUMBER OF DISPATCHERS THAT WE CURRENTLY HAVE. AGAIN, I WOULD HAVE TO TAKE A LOOK AT THAT TUESDAY -- TO SEE.

>> YOU AGREE WITH THAT?

>> KNOW, WE CAN HAVE 20 FLIGHTS LEAVING OUT OF OUR FIELD AT NIGHT AND THEY ALL LEAVE WITHIN TWO OR THREE HOURS. IF THE DISPATCH WANTED TO CALL AND HAVE THE CREW DO THE BRIEFING, WE WOULD NOT HAVE THE TIME TO DO IT.

>> LASTLY, YOU MENTIONED A POSSIBLE REASON FOR A DISPATCHER TO REACH OUT TO THE CREW WOULD BE MARGINAL WEATHER. DOES THE FAA DEFINE MARGINAL WEATHER?

>> THERE IS NO SPECIFIC DEFINITION OF MARGINAL WEATHER. IT IS LEFT UP TO THE OPERATOR TO MAKE THAT TYPE OF DETERMINATION.

>> THANK YOU. THAT IS ALL.

>> THANK YOU. AIRBUS?

>> WE HAVE NO QUESTIONS.

>> FAA?

>> WE HAVE NO QUESTIONS.

>> UBS? -- UPS?

>> WE HAVE NO QUESTIONS.

>> IPA?

>> JUST ONE QUESTION. REFERENCING MR. LAWRENCE'S EXHIBIT IN 2011 ABOUT WERE THE CREW MEMBERS NOTIFIED BY SAFETY BULLETIN THAT THOSE REMARKS WERE REMOVED?

>> WE WERE NOT AWARE OF ANY BULLETIN THAT WENT OUT AT THAT TIME. IN RETROSPECT, THAT WOULD HAVE BEEN A MORE COMPLETE WAY OF CLOSING OUT THE PROCESS. I DO BELIEVE THAT THE EXPECTATION WAS THAT WE WERE GOING TO RELY ON THE GUIDANCE AND THE FOM TO PROVIDE THAT INFORMATION.

>> THANK YOU, MADAM CHAIRMAN.

>> MEMBER WAINER?

>> I'M TRYING TO UNDERSTAND, BY LOOKING AT THE DOCUMENTATION ABOUT THEY CALL FOR TENS THAT DO IT MILES, VISIBLE BE BROKEN, 1000 OVERCAST 7500 FEET. THE OFFICIAL CEILING WOULD HAVE BEEN AT 1000 FEET, BECAUSE IT IS A BROKEN ONE? THIS IS THE INFORMATION THAT THE CREW HAD? SO THIS IS WHAT THE CREW WAS EXPECTING TO BREAK OUT OF THE THOUSAND FEET?

>> YOU ASKING ME? UNTIL THEY RECEIVED IT, THAT WOULD BE THE INFORMATION THEY HAD.

>> WHAT DID IT CALL FOR?

>> THE SAME THOUSAND FOOT.

>>? HAD THEY HAD THE REMARKS, 600 VARIABLE, 1300 CEILING, THEY MIGHT HAVE BEEN MORE ALERT TO THE FACT THAT MAYBE THE DOCUMENTATION WAS NOT CORRECT?

>> THE FLIGHT WAS ORIGINALLY RELEASED A STUNNING FORECAST WHICH WOULD REPRESENT THE WEATHER CONDITIONS THEY SHOULD EXPECT WHEN THEY RELEASE BIRMINGHAM -- REACH BIRMINGHAM. EXPECTATION WAS THAT THEY WERE GOING TO FLY AN APPROACH DOWN TO 400 FEET, POTENTIALLY NOT ABLE TO BREAK OUT. THE MOST RECENT WEATHER AVAILABLE TO THEM, IT IS JUST A DUPLICATION OF THE DOCUMENTATION TAKEN, AND THAT READING, DEPENDING ON WHERE THE UNIT IS AT THE AIRPORT COULD HAVE A GREAT DEAL OF VARIATION BASED ON THE APPROACH TO THE RUNWAY.

>> THEY ARE THEN ANTICIPATING SHOOTING APPROACH DOWN TO 400 FEET, WHICH IS LIMITED TO 530 FEET?

>> I KNOW THAT YOU CANNOT KNOW THAT THE CREW MIGHT HAVE BEEN ANTICIPATION, MAYBE EXPECTATIONS GIVEN THE BREACH -- DEBRIEFED MATERIAL? ANY REPHRASED?

>> LET ME CHANGE IT SLIGHTLY. THE REMARKS ARE CONTROLLING. WHAT DOES THAT MEAN?

>> WAS THAT TO ME?

>> YES. I BELIEVE IT WAS YOU THAT SAID THEIR MARKS ARE CONTROLLING -- THE REMARKS ARE CONTROLLING.

>> LEGAL COUNSEL HAS PASSED INTERPRETATION SAYING THAT REMARKS, IF PRESENT, NEED TO BE CONSIDERED. IF THE WORST WEATHER CONDITIONS PRESENT NEED TO BE EVALUATED AND DETERMINED IF THE APPROACH CAN BE CONDUCTED OR NOT. IN THE PREVIOUS HOURLY, IT WAS SHOWN THAT THE CREW DID NOT HAVE, THEY SHOULD HAVE CONSIDERED THAT.

>> CAN IT BE CLEAR FOR THE APPROACH WITH A 600 VARIABLE 1300 VARIABLE?

>> YES BECAUSE THEY'RE PROMISED TO HAVE THE VISIBILITY -- THE REQUIREMENT IS TO HAVE THE AVAIL VISIBILITY TO MAKE THE APPROACH.

>> AND THE VISIBILITY WAS 10 MILES?

>> IT WAS MORE THAN ADEQUATE FOR THE APPROACH.

>> WE HAVE HAD A LOT OF DISCUSSIONS ABOUT REPORTING SYSTEMS. IF SOMETHING HAPPENS AND THERE IS AN ISSUE, YOU FIND IN ANOMALY, WOULD YOU REPORT THAT

YOUTOO?

>> WHAT DO YOU MEAN?

>> A CHART THAT HAS THE WRONG NUMBER, ANYTHING OUT OF THE ORDINARY THAT YOU THINK SOMEONE OUGHT TO TAKE A LOOK AT AND FIGURE OUT IF WE NEED TO MAKE A CHANGE. HOW WOULD YOU GET THAT INTO THE SYSTEM SO THAT SOMEONE WILL LOOK AT IT AND MAKE A CHANGE FOR YOU?

>> IT DEPENDS ON WHAT IT IS. IT COULD BE AS SIMPLE AS LOADING -- LETTING FLIGHT STANDARD K NOW. IT COULD BE AN ASAP REPORT INDICATING THAT SOMETHING IS WRONG HERE AND 70 NEEDS TO TAKE A LOOK AT IT. THAT ARE SOME OF THE FEW.

>> I AM CURIOUS FROM YOUR PERSPECTIVE, OUR PROCEDURES AND THINGS MAINTAINED AS FAR AS UPDATES AND THINGS ARE GOING? IF EVERYTHING SAYS DOWN IF YOU'RE NOT OPERATING. WHO IS DOING THE ONGOING EVALUATION TO MAKE SURE THE SAFEST, MOST INFORMATIVE PROCESS THAT CAN BE?

>> I AM NOT SURE I COMPLETELY UNDERSTAND THE QUESTION. THE PROCESS, WE ARE A GLOBAL OPERATION, AND IT IS VERY COMPLEX, SO AUTOMATION PLAYS A ROLE. WE LOOK AT EVERYTHING WE DO EVERY DAY, AND SOME OF THOSE ARE OUT THERE IS A WAY TO HIGHLIGHT ANYTHING THAT IS DEFICIENT. WE ARE PLUGGED INTO THE DAY-TO-DAY SUCCESS OF WHAT WE DO, AND ANY OF THOSE CONCERNS OR ISSUES COME TO THE TOP VERY QUICKLY.

>> THAT IS GREAT. MR. HEINLEIN, YOU SPOKE EARLIER WHERE WE DO NOT HAVE OVERSIGHT. CAN YOU SPEAK TO WHERE YOU DO?

>> I AM SORRY, I'M NOT EXACTLY SURE WHAT YOU'RE QUOTING.

>> I'M TRYING TO UNDERSTAND WHAT ROLE THE FAA HAS AS OVERSIGHT FOR THE DISPATCH SERVICES THAT ARE PROVIDED.

>> I WAS TALKING ABOUT WE DON'T REALLY APPROVE A FLIGHT PLANNING SYSTEM. WE HAVE COMPLETE OVERSIGHT OVER THE CARRIER, AND THE SAFETY OF THE WHOLE DISPATCH OPERATION CONTROL. THE DISPATCH TIME, AND THEIR TRAINING, I HAVE COMPLETE OVERSIGHT OVER THAT. WE DO NOT REGULATE FLIGHT PLANNING SYSTEMS, I THINK THAT MIGHT BE --

>> THAT WAS THE DISTINCTION I WAS TRYING TO GET TO.

>> THANK YOU.

>> I'M NOT SURE I UNDERSTOOD THE ANSWER. IS THE DETERMINANT OF WHETHER AN APPROACH MAY BE COMMENCED DETERMINANT VISIBILITY ALONE, OR TO WHAT EXTENT DOES CEILING PLAY A ROLE?

>> WE HAVE HAD PAST LEGAL INTERPRETATIONS ON THIS. VISIBILITY MUST BE PRESENT, IT REQUIRES THE CONDUCT OF THE APPROACH. CEILING IS ONLY REQUIRED UNDER OPERATION, A CIRCLING APPROACH, CIRCLING TO LAND, WITH THE TYPE OF OPERATION

WHERE YOU'RE LIMITED.

>> THANK YOU.

>> I WANT TO TRY TO PULL IT BACK A LITTLE BIT. AGAIN, I AM TRYING TO LOOK FOR A AND THOUSAND FOOT PERSPECTIVE ON THIS. WHEN I THINK ABOUT THE NATURE OF THE WORK THAT YOU DO, AND WHEN WE HAVE LOOKED AT IT IN OTHER AREAS, IT IS ABOUT HOW YOU MANAGE RISK WHEN YOU ARE DEPLOYING. I'M CURIOUS TO KNOW WHEN YOU ALL ACTUALLY MAKE OR CREATE A DISPATCH, DOESN'T HAVE A LEVEL OF RISK ASSOCIATED WITH IT? PEOPLE ARE TALKING ABOUT DIFFERENT PIECES, WEATHER, EQUIPMENT, DIFFERENT THINGS, BUT DO YOU GET AN OVERALL SENSE OF WHAT THE RISK LEVEL OF THAT PARTICULAR FLIGHT IS GOING TO BE? O'ER THE SERIES OF LEGS THAT YOUR DISPATCHING THE PILOT ON? YOU UNDERSTAND?

>> YES. WE HAVE AN OVERALL PICTURE. IT IS A VERY EXTENSIVE PICTURE THAT WE HAVE OF THE FLIGHT, THAT WE PLAN AND WE FOLLOW. WHEN THE DISPATCH HAS 20 OF THESE FLIGHTS, WE DO OVERSEE THAT.

>> LET ME SYMBOL OF I MY QUESTION A LITTLE BIT. IF YOU'RE DISPATCHING A FLIGHT, PART OF THIS RELATIONSHIP BETWEEN THE DISPATCHER AND THE PILOT, YOU MIGHT HAVE CONSTRUCTION AT AN AIRPORT WE MIGHT HAVE VISIBILITY OR WEATHER CONDITIONS, YOU MIGHT HAVE SOME OF THE EQUIPMENT OUT. YOU MIGHT HAVE AN AIRCRAFT THAT HAS SOMETHING WRONG, DO YOU HAVE A SCALE OF ONE TO 10 OF HOW MUCH RISK IS INHERENT IN A FLIGHT, DO YOU HAVE A RED GREEN YELLOW, HOBBY UNDERSTAND HOW DO YOU COMMUNICATE? NOT ABOUT THE SPECIFIC THINGS LIKE WITH THE WEATHER, OR A CERTAIN CEILING, I JUST TALKING ABOUT THE OVERALL RISK LEVEL, SO PILOTS KNOW IF THEY NEED TO BE ON THE EDGE OF THEIR SEATS PAYING ATTENTION, OR WHETHER OR NOT THIS IS GOING TO BE SOMETHING THAT IS GOING TO BE STRAIGHTFORWARD?

>> IT STARTS WITH WHAT WE KNOW THE CREW HAS, WHAT INFORMATION THEY HAVE. THAT IS WHAT EVERYTHING STARTS FROM. WE KNOW IT IS IN THE BRIEFING PACKAGE AS FAR AS THE FORECASTED WEATHER, THE MEL ITEMS, THE AIRPORT CONDITIONS. WE KNOW THEY HAVE THE APPROACH CHARTS, THE SAME TERMS THAT WE DO. IF WE BOTH HAVE THE EXACT SAME INFORMATION, WE ASSUME THAT WE WILL WITHDRAW -- DRAWN THE SAME CONCLUSIONS THAT HAVE THE SAME PICTURE OF WHAT IS GOING ON. WHEN THE DISPATCHER HAS OTHER INFORMATION THAT THE PILOT MAY NOT HAVE, AND THE MORE OF THE INFORMATION THAT IS WHAT INTO THAT FLIGHT, THAT IS WHEN THE RISK LEVELS GO UP.

>> HOW DO YOU COMMUNICATE THOSE LEVELS?

>> WE START WITH THE DISPATCHER MARK ON THE FLIGHT RELEASE WHICH IS JUST A TEXT FIELD. IT IS AN OPEN TEXT FIELD WHERE THE DISPATCHER CAN TYPE IN INFORMATION THAT HE HAS SAID THAT -- THAT HE HAS, THAT THE CREW DOES NOT HAVE IN THEIR BRIEFING PACKET. IT IS A VERY SMALL TEXT FIELD, YOU CANNOT WRITE A BOOK THERE. IT IS JUST A COUPLE OF THINGS THAT HE CAN TYPE IN THERE, AND SEND IT WITH THE RELEASE, SO HE WILL PROBABLY LEAVE IT AT THAT. HOWEVER, IF THERE IS SOMETHING THAT CANNOT BE TYPED OUT, SAYING THAT I GOT A FORECAST LINE OF THUNDERSTORMS ALONG THE ROUTE THAT THE CREW MAY NOT BE ABLE TO SEE WHILE THEY ARE REVIEWING THE PAPERWORK, THEY WILL PICK UP THE PHONE AND SAY THAT

ALONG YOUR FLIGHT THERE IS A THUNDERSTORM, SO I AM ROOTING AROUND THAT -- ROUTING YOU AROUND THAT. IT IS EASED ON THE INFORMATION THAT THE DISPATCHER KNOWS THAT THE CREW HAS, AND EVERY PIECE THAT IS PERTINENT TO THAT FLIGHT, THAT HE KNOWS THAT THE CREW DOES NOT HAVE, THE MORE OF THAT INFORMATION IS OF THE HIGHER-LEVEL ALERTNESS TO THE DISPATCHER.

>> DO YOU HAVE THE AUTHORITY TO SAY NO GO?

>> YES, AND WE DO.

>> WHAT RUSH WILL DO YOU HAVE TO REACH TO SAY THAT -- THRESHOLD YOU HAVE TO REACH TO SAY THAT?

>> FOR THE EXAMPLE OF EARNING HIM, WITH THE CEILING ALONE, TO THE DISPATCHER THAT WOULD NOT BE A REASON TO NOT GO. THE DISPATCHER IS UNDER THE UNDERSTANDING THAT THE APPROACH TO THE CEILING HEIGHT, THE DECISION HEIGHT, THAT THE CREWS ARE TRAINED TO DO THAT, AND IF THEY DO NOT SEE THE RUNWAY AT THAT HEIGHT THEY WILL EXECUTE A MISSED APPROACH.

>> IN READING THROUGH SOME OF THE OTHER INTERVIEWS, THERE WAS A FEDEX FLIGHT THAT WAS ALSO COMING INTO BIRMINGHAM AT THE SAME TIME. -- CREW OF THAT FLIGHT ELECTED TO WAIT FOR THE MAIN RUNWAYS TO BE OPENED WITH THE EQUIPMENT, AND THEY WERE GETTING PRETTY CLOSE TO OPENING THOSE RUNWAYS. WHAT IS THE RISK LEVEL THERE? WE TALKED ABOUT EARLIER IN THE OTHER PANELS MAY BE TWO A YEAR THAT WERE NON-PRECISION APPROACHES. ARE THERE WAYS TO COMMUNICATE AND ALLOW THEM TO KNOW THAT THEY WOULD BE COMING IN 10 MINUTES LATER? HOW DO YOU COMMUNICATE SOMETHING LIKE THAT?

>> THE NOTE WOULD HAVE INDICATED THAT THE RUNWAY WAS GOING TO BE OPEN.

>> SO IT IS THE PILOT'S DECISION?

>> IT IS A COMFORT LEVEL THAT THE CREW WOULD HAVE WITH DOING A NON-PRECISION APPROACH THAT THE DISPATCHER DOES NOT KNOW. THE DISPATCHER KNOWS WHAT WE ARE AUTHORIZED FOR, AND WHAT THE CREWS ARE TRAINED TO DO, AS FAR AS PROFICIENCY, OR HOW MANY TIMES A YEAR THEY DO THIS, IT IS ADDRESSED NO IDEA UNLESS THE CREW TELLS THE.

>> DOES THAT MEAN ANYTHING TO YOU?

>> CONTROLLED FLIGHT INTO TERRAIN --

>> SOME SCALE OR RATING SYSTEM OF SOME

>> THE DISPATCHER DOES.

>> ALL RIGHT. THANK YOU ALL. ANY OTHER QUESTIONS? HOW ABOUT THE TECHNICAL PANEL?

>> YES, ONE MORE.

>> SURE.

>> I HAVE ONE QUESTION. FOR EITHER MR. CHESNUTT OR MR. AMESBURY. I'M CURIOUS ABOUT THE CULTURAL BARRIERS BETWEEN THE PILOTS AND DISPATCHERS AT UPS. ACCORDING TO ONE OF THE INTERVIEWERS, HE TOLD US THAT HE WASN'T SURE HE WOULD CONTACT THE PILOTS TO LET THEM KNOW ABOUT THE NIGHT, ON AUTHORIZED VERSION FOUR RUNWAY 18, BECAUSE HE DIDN'T WANT TO INSULT THE PILOT BY CONTACTING HIM OF SUCH. IS THERE ANY CULTURAL BARRIERS THAT EXIST AT UPS BETWEEN DISPATCHERS AND PILOTS? IS THERE A FEAR THAT THEY HAVE OF PILOTS OF COMMUNICATING?

>> LET ME TAKE A STAB. I BELIEVE THE REFERENCE THAT HE WAS MAKING WAS THAT THIS IS BASIC KNOWLEDGE TO THE DISPATCHER AND A CREW MEMBER, AND HIM POINTING THAT OUT MIGHT HAVE BEEN SPEAKING DOWN TO HIM, IS THE WAY I INTERPRETED THAT. I DON'T BELIEVE THERE IS A CULTURAL ISSUE BETWEEN DISPATCHERS AND FLIGHT CREWS. WE HAVE A SIMILAR KIND OF REQUIREMENT. WE HAVE A FIVE HOUR INITIAL TRAINING, AND A 15 HOUR SEMINAR THAT OCCURS BETWEEN THE 12TH AND THE 24TH MONTH THAT WE COMPLETE WITH THE DISPATCHERS, AND THEN AFTER THAT. WE ARE AWARE OF SOME OF THE ISSUES, FATIGUE ISSUES, SITUATIONAL AWARENESS. WE TRY TO TRAIN TO THOSE LEVELS WE CAN HELP GET INSIDE THEIR HEAD AND MAKE SURE WE ARE THINKING ABOUT THE SAME WAY.

>> I WILL PASS ON THE QUESTION. THIS IS FROM THE BACK. I WANT TO MAKE SURE I CAPTION THIS. LET ME KNOW IF I DIDN'T GET THIS RIGHT. THIS IS TO MR. AMESBURY AND MR. CHESNUTT. THE FAA HAS APPROVED THE WEATHER FORECASTING SYSTEM. DOES THAT SYSTEM REQUIRE PILOT REPORTS, ALL ADVISORY THUNDERSTORMS, AND GREATER TURBULENCE? IF IT DOESN'T PROVIDE THAT, IS THE WEATHER COMPONENT LIMITED? I WOULD ACTUALLY DIRECT THIS TO ANYBODY ON THE PANEL.

>> I DON'T KNOW ABOUT THE DOCUMENT YOU ARE TALKING ABOUT. I AM NOT SURE THAT I AM COMPLETELY THE MILL YOUR WITH IT -- COMPLETELY FAMILIAR WITH IT. WE DO HAVE THE ABILITY TO PROVIDE CREWS WITH REMARKS, SINCE WE HAVE RELOOK AT THIS AND DONE OUR OWN INVESTIGATION. BUT WE HAVE DONE IS WE DECIDED WE ARE GOING TO PROCEED WITH AN ALTERNATE SOLUTION THAT WILL BE ABLE TO PROVIDE THE INFORMATION TO THE FLIGHT CREWS THAT PIECE IS MISSING. HOPEFULLY THAT IN THE NEXT SIX MAKES -- NEXT SIX WEEKS IS UP AND RUNNING.

>> ONE MORE QUESTION. THERE WERE THUNDERSTORMS FORECAST WITHIN 45 MILES OF THE FLIGHT. SHOULD THE DISPATCHER HAVE ISSUED SOME TYPE OF NOTIFICATION TO PILOTS?

>> I DON'T BELIEVE THERE WERE ANY SIGNALS OUT THERE TO NOTIFY. IF THERE WAS A HAZARDOUS WEATHER INDICATION WE WOULD HAVE BEEN REQUIRED TO PASS IT ON.

>> I BELIEVE THERE WERE THUNDERSTORMS THAT WERE IN EXISTENCE. IF THEY HAVE THE IN-FLIGHT MONITOR, AND NOTICE THERE ARE THUNDERSTORMS, SHOULD THEY HAD CONTACTED THE CREW?

>> I DO NOT RECALL WHERE THE THUNDERSTORMS WERE. THEY WERE NORTH OF WHERE THEY WERE. THERE WAS A SMALL, ISOLATED CELL. I COULDN'T ANSWER THAT

DEFINITIVELY.

>> I THINK THAT IS ALL THE TECHNICAL HAS AT THIS TIME.

>> GREAT.

>> ONE QUESTION. REMARKS, I WANT TO CLARIFY FOR THE RECORD IF YOU COULD COMMENT, REMARKS FOR THIS CREW, WAS IT ACTUALLY CONTROLLING WEATHER INFORMATION?

>> THERE WERE NO REMARKS REPORTED THAT WAS PROVIDED.

>> THANK YOU.

>> ANY OTHER PARTY HAVE ANY FOLLOW-UP QUESTIONS?

>> MR. AMESBURY, WHEN YOU DISPATCH, DO YOU DISPATCH TO AN AIRPORT OF DU DISPATCHED TO A PARTICULAR BONWIT?

>> WE LOOK AT THE AVAILABLE RUNWAYS, AND WE PLAN OUR MINIMUM SPACE AVAILABLE.

>> HOW MANY RUNWAYS AVAILABLE TO THE DISPATCHER?

>> ONE. LIKE THAT YOU THAT THE DISPATCH RUNWAY TEAM SPECIFICALLY HERE?

>>

>> THERE WAS NO OTHER CHOICE THAN FOR HIM TO DO THAT.

>> THANK YOU.

>> SEEING NO OTHER QUESTIONS, THE TECHNICAL PANEL, AND WE HAVE NO OTHER WITNESSES TO TESTIFY, THE NTSB INVESTIGATIVE HEARING INTO THE CRASH OF UPS FLIGHT 1354A BIRMINGHAM IS CONCLUDED. THE RECORD WILL REMAIN OPEN FOR ADDITIONAL MATERIALS REQUESTED IN THE HEARING. OUR FACTUAL INVESTIGATIVE WORK CONTINUES. I EXTEND MY APPRECIATION TO ALL OF THE PARTICIPANTS ON ALL THREE PANELS. THANK YOU TO THE WITNESSES FOR THEIR TESTIMONY, AND THE PARTIES FOR THEIR COOPERATION. WHILE EACH INDIVIDUAL AND ORGANIZATION HERE BRINGS DIFFERENT KNOWLEDGE TO THE TABLE , AND HAS DIFFERENT PERSPECTIVES, EVERYONE HAS THE SAME GOAL. TO IMPROVE AVIATION SAFETY. I WOULD ALSO LIKE TO ACKNOWLEDGE OUR STAFF WHO PROVIDED SUPPORT FOR THIS HEARING. THANK YOU ALL FOR YOUR HARD WORK AND PREPARATION FOR THIS DAY. A TRANSCRIPT IS SCHEDULED TO BE AVAILABLE TO THE PARTIES WITHIN SEVEN DAYS OF COMPLETION OF THE HEARING. ANY CORRECTIONS TO THE TRANSCRIPT BY WITNESSES OR PARTY SHOULD BE SENT TO THE HEARING OFFICER WITHIN SEVEN DAYS. YOU ARE GOING TO GIVE THEM 30 DAYS, JOHN? OR SEVEN?

>> 30 DAYS.

>> WE WILL GET IT WITHIN SEVEN DAYS. WE WILL GET BACK OUT TO YOU. ANY DOCUMENTS OR INFORMATION THAT HAS BEEN REQUESTED DURING THE HEARING, THE PARTY AGREES TO FURNISH THE NTSB, SHOULD BE SENT TO THE HEARING OFFICER BY THE SAME DAY. JOHN HAS BEEN KEEPING A LIST OF THE IOUS. FINALLY, EACH OF THE PARTIES WILL BE INVITED TO PUT FORWARD A SUBMISSION FOR THE RECORD. MANY PARTIES HAVE PROVIDED INFORMATION THROUGHOUT THE COURSE OF THE INVESTIGATION. THEY ARE KEEN ON GETTING THAT INFORMATION IN THE DOCKET. AND, IN FRONT OF THE BOARD FOR OUR CONSIDERATION, AS WELL AS THEIR TECHNICAL STAFF FOR THEIR REVIEW. THERE WILL BE TIME TO DO THAT. DR. WILSON WILL BE MEETING WITH HER TEAM TO LOOK AT SOME ADDITIONAL INFORMATION IN THE COMING WEEKS. WE LOOK FORWARD TO RECEIVING ALL OF THAT INFORMATION FROM YOU ALL IN SUPPORT OF YOUR SUBMISSIONS AS WELL. THOUGH SUBMISSIONS WILL BE REVIEWED. THEY WILL BE CONSIDERED. THEY ARE PUT IN THE DOCKET FOR THIS ACCIDENT. THE ARCHIVE OF TODAY'S WEBCAST WILL REMAIN ON OUR WEBSITE FOR SEVERAL MONTHS. THE HEARING TRANSCRIPT AND ALL OF THE MATERIALS THAT HAVE BEEN ENTERED INTO THE DOCKET WILL REMAIN AS PART OF OUR PERMANENT DOCKET AVAILABLE ON OUR WEBSITE. TODAY WE HAVE SHINED A LIGHT ON VIABLE FACTS AND CIRCUMSTANCES OF LAST AUGUST 14, TO BETTER UNDERSTAND THE CRASH AND PREVENT SIMILAR ACCIDENTS IN THE FUTURE. OUR INVESTIGATION IS ONGOING. WE WILL WORK DILIGENTLY TO COMPLETE OUR WORK IN ADVANCE OF THE ONE-YEAR ANNIVERSARY OF THIS ACCIDENT, THIS COMING AUGUST. TO THE FAMILIES, THEIR WORDS ETCHED IN OUR TRAINING CENTER INJURY WAY. -- ENTRYWAY. WE WILL CERTAINLY ENDEAVOR TO DO THAT IN THIS CASE. WE STAND ADJOURNED.