UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

FOR RELEASE ON DELIVERY
EXPECTED AT 10:00 A.M.
THURSDAY APRIL 4, 1985

STATEMENT OF

FRANK C. CONAHAN, DIRECTOR

NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION

BEFORE THE

COMMITTEE ON GOVERNMENT OPERATIONS

UNITED STATES HOUSE OF REPRESENTATIVES

ON

AN OPPORTUNITY TO REDUCE PROLIFERATION AND IMPROVE ACQUISITION STRATEGY FOR ELECTRONIC COMBAT JAMMERS

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

I AM PLEASED TO APPEAR BEFORE THE COMMITTEE TODAY TO DISCUSS OUR DRAFT REPORT AND TENTATIVE FINDINGS ON THE AIR FORCE ALQ-131 JAMMER AND THE JOINT NAVY/AIR FORCE ALQ-165 JAMMER, COMMONLY REFERRED TO AS THE AIRBORNE SELF PROTECTON JAMMER OR ASPJ. WE FOCUSED OUR REVIEW ON (1) WHETHER COMMONALITY POSSIBLE THROUGH ASPJ IS BEING ACHIEVED, (2) POWER MANAGEMENT FOR THE ALQ-131, AND (3) THE CONCURRENT TESTING AND PROCUREMENT STRATEGY USED FOR THE ALQ-131.

BACKGROUND

JAMMERS ARE ELECTRONIC COMBAT DEVICES USED TO PROTECT AIRCRAFT BY EMITTING ELECTRONIC SIGNALS WHICH INTERFERE WITH RADAR-CONTROLLED AIR DEFENSE WEAPONS. THE ALQ-131 AND ASPJ ARE TWO MAJOR JAMMER SYSTEMS CURRENTLY BEING ACQUIRED FOR AIRCRAFT SELF-PROTECTION. THERE ARE MANY OTHER JAMMERS OF VARIOUS AGE AND CAPABILITY IN THE SERVICES INVENTORY, A FEW OF WHICH I WILL BRIEFLY MENTION IN THIS STATEMENT.

COMPONENTS OF THE ALQ-131 JAMMER ARE CONTAINED IN A POD AND MOUNTED UNDERNEATH THE AIRCRAFT, EITHER TO THE FUSELAGE OR WING. IT IS BEING ACQUIRED IN FOUR PROGRESSIVELY SOPHISTICATED VERSIONS, REFERRED TO AS BLOCKS I THROUGH IV. EACH VERSION IS PLANNED TO INCORPORATE TECHNOLOGICAL ADVANCES AND INCREASED CAPABILITY. BLOCK I PODS WERE DEPLOYED FROM 1979 THROUGH 1984, AND BLOCK II PODS ARE SCHEDULED TO BEGIN DEPLOYMENT IN 1985.

DEPLOYMENT OF BLOCKS III AND IV ARE PLANNED FOR THE 1990'S.

ALSO, THE ALQ-131 BLOCK II IS SUPPOSED TO BE EQUIPPED WITH POWER MANAGEMENT WHICH ENABLES THE JAMMER TO AUTOMATICALLY DETECT AND CONCENTRATE ITS JAMMING POWER AND APPLY THE MOST EFFECTIVE TECHNIQUES AGAINST EACH SPECIFIC THREAT. WITHOUT THIS CAPABILITY JAMMER EFFECTIVENESS IS DEGRADED.

THE AIR FORCE IS PURSUING TWO SEPARATE POWER MANAGEMENT PROJECTS. ONE, THE COMPREHENSIVE POWER MANAGEMENT SYSTEM (CPMS), REPRESENTS REPACKAGING OF THE ASPJ POWER MANAGEMENT SYSTEM AND IS AN OUTGROWTH OF THE JOINT NAVY/AIR FORCE ASPJ PROGRAM. THE OTHER, SIMPLY KNOWN AS THE RECEIVER/PROCESSOR OR R/P, IS VERY SIMILAR TO CPMS AND BEGAN DEVELOPMENT IN 1971 AS PART OF THE ALQ-131.

ASPJ HAS BEEN DEVELOPED PRIMARILY AS AN INTERNALLY MOUNTED JAMMER FOR USE IN VARIOUS NAVY AND AIR FORCE AIRCRAFT AND AS A POD-MOUNTED JAMMER FOR SOME NAVY AIRCRAFT. PRODUCTION WILL BEGIN IN FISCAL YEAR 1986. THERE IS ALSO A PLAN TO DEVELOP TWO UPGRADED VERSIONS OF ASPJ, BOTH INTERNAL AND POD. THESE UPGRADES ARE INTENDED TO INCORPORATE ADVANCED JAMMING TECHNIQUES AND OTHER SYSTEM IMPROVEMENTS. DEVELOPMENT OF THE FIRST IMPROVED VERSION IS EXPECTED TO BE COMPLETE BY FISCAL YEAR 1988 AND THE SECOND BY 1990.

LIMITED JAMMER COMMONALITY

CONGRESS HAS BEEN CONCERNED FOR MANY YEARS WITH ACHIEVING COMMONALITY AND REDUCING PROLIFERATION OF SERVICE PROGRAMS. IN PARTICULAR, CONGRESSIONAL COMMITTEES HAVE FREQUENTLY EXPRESSED CONCERN OVER THE PROLIFERATION OF ELECTRONIC COMBAT EQUIPMENT. BECAUSE OF THE DESIRE TO SEE SYSTEMS EVOLVE THAT COULD SERVE INTERSERVICE NEEDS, CONGRESS ENCOURAGED THE AIR FORCE AND NAVY TO ACHIEVE COMMONALITY IN THEIR ELECTRONIC COMBAT SYSTEMS.

THIS COMMITTEE ON SEVERAL OCCASIONS HAS VOICED ITS CONCERN OVER THE LACK OF SYSTEM COMMONALITY. FOR EXAMPLE, IN JUNE 1982 HEARINGS ON RADAR WARNING RECEIVERS, MR. CHAIRMAN, YOU STATED THAT IT APPEARS THE AIR FORCE AND NAVY ARE STILL GOING THEIR SEPARATE WAYS, DUPLICATING RESEARCH, ENGINEERING AND SUPPORT COSTS WHEN THEY COULD ACHIEVE SIGNIFICANT SAVINGS THROUGH A COMMON APPROACH.

LATER, IN AUGUST 1984, A REPORT BY THIS COMMITTEE STATED THAT AN EFFECTIVE WAY TO CONTROL COST WOULD BE TO DEVELOP STANDARD AVIONICS WHENEVER POSSIBLE, INSTEAD OF DEVELOPING UNIQUE AVIONICS FOR EACH TYPE OF AIRCRAFT. THE REPORT FURTHER STATED THAT STANDARDIZATION PROGRAMS PROMOTE ECONOMIES OF SCALE AND PROVIDE FOR MORE EFFICIENT SUPPLY, SERVICE AND TRAINING FUNCTIONS.

ASPJ WAS SELECTED AS THE COMMON JAMMER OF THE FUTURE FOR USE ON A VARIETY OF AIR FORCE AND NAVY AIRCRAFT. THE TWO PRIME CANDIDATE AIR FORCE AIRCRAFT SELECTED TO USE ASPJ WERE THE F-16 AND F-111. SAVINGS EXPECTED TO RESULT FROM USE OF A COMMON JAMMER WERE ESTIMATED TO BE $1.2 BILLION. IN ADDITION, DOD, AIR FORCE, AND NAVY REPRESENTATIVES TESTIFIED THAT TO PROMOTE ASPJ COMMONALITY FURTHER, THE AIR FORCE WOULD REPACKAGE THE POWER MANAGEMENT SYSTEM IN ASPJ, REFERRED TO AS CPMS, AND USE IT IN THE ALQ-131.

OUR REVIEW SHOWED THAT RATHER THAN PROMOTE COMMON USE OF ASPJ AS INTENDED BY VARIOUS COMMITTEES OF THE CONGRESS, THE AIR FORCE HAS DECREASED ITS PLANNED USE. IT HAS CONTINUED ACQUISITION OF SEVERAL VERSIONS OF THE ALQ-131, INCREASED ITS PLANNED USE OF THAT JAMMER, AND IS DEVELOPING UPGRADED VERSIONS OF OTHER JAMMERS. AS A RESULT, POTENTIAL COST SAVINGS AND OTHER BENEFITS INHERENT IN COMMON SERVICE PROGRAMS HAVE SO FAR NOT BEEN FULLY REALIZED.

WE FOUND THAT THE AIR FORCE TOLD CONGRESS IT WOULD USE ASPJ ON THE F-16, INCLUDING THE F-16A MODEL. HOWEVER, THIS PLAN CHANGED AND THE AIR FORCE NOW INTENDS TO USE ASPJ ONLY ON THE F-16C. IT'S REASON IS THAT RETROFIT COSTS FOR THE F-16A WILL BE TOO HIGH. YET, THE F-16S WERE SUPPOSED TO BE MANUFACTURED WITH WIRING CHANGES NECESSARY TO ACCOMMODATE ASPJ. THE AIR FORCE

ALSO OUTLINED A PLAN TO USE THE ALQ-131 ON AN INTERIM BASIS FOR THE F-16 PENDING ASPJ AVAILABILITY. THESE EARLY PRODUCTION F-16S EQUIPPED WITH THE ALQ-131 WERE TO BE RETROFITTED WITH ASPJ.

NOW, F-16A AIRCRAFT DEPLOYED TO EUROPE WILL USE THE ALQ-131 ON A PERMANENT RATHER THAN INTERIM BASIS. THOSE DEPLOYED TO THE PACIFIC ARE SCHEDULED TO USE THE ALQ-119 OR AN IMPROVED VERSION. THE IMPROVED ALQ-119 HAS BEEN REDESIGNATED ALQ-184, AND ITS PERFORMANCE IS PLANNED TO BE ESSENTIALLY EQUIVALENT TO THE ALQ-131 BLOCK II.

A SIMILAR SITUATION EXISTS WITH THE F-111. THE AIR FORCE INITIALLY REJECTED USE OF ASPJ AND DECIDED TO UPGRADE THE EXISTING F-111 JAMMERS, THE ALQ-94 AND ALQ-137. THIS UPDATE IS REFERRED TO AS THE ALQ-189.

HOWEVER, BECAUSE OF CONGRESSIONAL INTEREST, THE AIR FORCE AGAIN CONSIDERED USING ASPJ FOR THE F-111. IN JANUARY 1985, WE WERE TOLD BY AN AIR FORCE OFFICIAL THAT THE AIR FORCE HAD DECIDED TO USE ASPJ. NEVERTHELESS, ACCORDING TO DOD THE DECISION HAS AGAIN BEEN CHANGED, AND THE ALQ-189 WILL NOW BE USED.

NEXT, LET ME TURN TO THE ALQ-131 POWER MANAGEMENT SYSTEM.

POWER MANAGEMENT

IN RESPONSE TO DOD DIRECTION TO MAXIMIZE COMMONALITY BETWEEN THE ALQ-131 AND ASPJ, THE AIR FORCE AGREED TO USE CPMS AS THE POWER MANAGEMENT SYSTEM FOR ALQ-131. CONGRESS WAS ADVISED OF THIS AGREEMENT DURING FISCAL YEAR 1980 HEARINGS WHEN DOD AND AIR FORCE REPRESENTATIVES TESTIFIED THAT CPMS WOULD BE USED FOR THE ALQ-131. AT THE TIME OF THESE HEARINGS, THE AIR FORCE WAS TESTING ITS OWN SEPARATE POWER MANAGEMENT SYSTEM REFERRED TO AS THE R/P. THIS R/P WAS GOING TO BE USED IN THE ALQ-131 UNTIL THE MORE ADVANCED CPMS WAS AVAILABLE. EVENTUALLY, ALL 1,115 BLOCK I AND II ALQ-131S WERE GOING TO RECEIVE THE CPMS.

NEVERTHELESS, THE AIR FORCE HAS DEVELOPED TWO IMPROVED VERSIONS OF THE R/P. IN FEBRUARY 1979, 4 MONTHS AFTER STATING THAT IT INTENDED TO USE CPMS, THE AIR FORCE DECIDED AGAINST USING ITS EXISTING R/P ON AN INTERIM BASIS AND STARTED A DEVELOPMENT PROGRAM TO IMPROVE IT. ACCORDING TO AIR FORCE OFFICIALS, THE IMPROVEMENT WAS NECESSARY PRIMARILY BECAUSE A CHANGE IN THREAT REQUIRED ADDITIONAL CAPABILITY. THIS NEW VERSION WAS REFERRED TO AS THE IMPROVED R/P.

BY MARCH 1983, AS THE IMPROVED R/P WAS COMPLETING ITS DEVELOPMENT AND TEST PROGRAM, THE AERONAUTICAL SYSTEMS DIVISION WAS DIRECTED TO INCORPORATE MODIFICATIONS BELIEVED NECESSARY FOR R/P CAPABILITY TO MATCH THAT OF CPMS. AS A RESULT, IN AUGUST 1983, A CONTRACT WAS AWARDED TO PROCURE EIGHT UNITS OF YET A THIRD VERSION KNOWN AS THE UPDATED R/P.

IN JUNE 1984, ANOTHER CONTRACT WAS AWARDED FOR 60 ADDITIONAL UPDATED R/Ps. BOTH CONTRACTS WERE ISSUED BEFORE ACTUAL PROTOTYPE UNITS WERE OPERATIONALLY TESTED.

THE AIR FORCE JUSTIFIED DEVELOPMENT OF BOTH CPMS AND R/P BECAUSE OF A STRONG OPERATIONAL REQUIREMENT FOR A POWER MANAGEMENT SYSTEM IN THE ALQ-131; A 2-YEAR OR SOONER AVAILABILITY FOR THE R/P; UNCERTAINTY THAT CPMS WOULD PASS TEST AND EVALUATION SUCCESSFULLY AND ON SCHEDULE; AND PROBABLE COST SAVINGS RESULTING FROM COMPETITION.

WE AGREE THAT THERE IS AN OPERATIONAL REQUIREMENT FOR AN ALQ-131 POWER MANAGEMENT SYSTEM. HOWEVER, THE AIR FORCE HAS FAILED TO MEET ITS GOALS IN THIS AREA AND IN OUR OPINION, THE REQUIREMENT FOR POWER MANAGEMENT WAS NOT A SUFFICIENT BASIS TO DEVELOP BOTH THE CPMS AND R/P. I WILL DISCUSS THIS FURTHER DURING THE EXECUTIVE SESSION.

BECAUSE OF THE AIR FORCE'S PRACTICE OF CONCURRENT TESTING AND PROCUREMENT FOR THE R/P, IT WILL NOT BE SUBJECT TO OPERATIONAL FLIGHT TESTING BEFORE PRODUCTION. FOR EXAMPLE, OPERATIONAL FLIGHT TESTING FOR THE R/P WILL NOT BEGIN UNTIL FISCAL YEAR 1987 EVEN THOUGH PRODUCTION WAS STARTED IN 1983. ON THE OTHER HAND, PRODUCTION HAS NOT STARTED ON CPMS AND OPERATIONAL FLIGHT TESTING IS SCHEDULED FOR 1985.

THEREFORE, IF THE UPDATED R/P WERE REQUIRED TO COMPLETE OPERATIONAL FLIGHT TESTING, LIKE CPMS, THE CPMS COULD ACTUALLY BE AVAILABLE SOONER THAN THE UPDATED R/P.

THERE IS A POSSIBILITY THAT CPMS WILL NOT PASS TEST AND EVALUATION SUCCESSFULLY AND ON SCHEDULE. HOWEVER, A SIMILAR RISK WOULD APPLY TO THE UPDATED R/P IF IT WERE SUBJECTED TO OPERATIONAL TESTING. WE RECOGNIZE THAT THE TWO PRIOR R/P VERSIONS WERE OPERATIONALLY TESTED, BUT MANY PROBLEMS WERE IDENTIFIED. THEREFORE, WE DO NOT BELIEVE THE UPDATED R/P SHOULD BE ALLOWED TO BYPASS OPERATIONAL FLIGHT TESTING BEFORE PRODUCTION.

FINALLY, IT IS UNLIKELY THAT ANY SAVINGS COULD RESULT FROM COMPETITION SINCE THE AIR FORCE IS ALREADY BUYING THE UPDATED R/P WITHOUT COMPETING IT AGAINST CPMS.

NEXT, I WOULD LIKE TO DISCUSS THE ACQUISITION STRATEGY USED TO PROCURE THE ALQ-131.

CONCURRENCY

THROUGHOUT TESTING OF THE ALQ-131 BLOCK I, PROCUREMENT CONTINUED EVEN THOUGH SIGNIFICANT PROBLEMS WERE IDENTIFIED. ALSO, BLOCK II PRODUCTION BEGAN IN 1983 WITHOUT OPERATIONAL TESTING.

I BELIEVE THE UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING APPROPRIATELY CHARACTERIZED THE ALQ-131 SITUATION IN A JUNE 1983 MEMORANDUM TO THE AIR FORCE:

> "*** I AM DISTURBED THAT AFTER ALMOST SEVEN YEARS OF CONTINUAL TEST, FIX, AND RETEST, THE ALQ-131 HAS NOT BEEN SHOWN TO BE EFFECTIVE, RELIABLE OR MAINTAINABLE IN AN OPERATIONAL SENSE. I UNDERSTAND THAT MOST OF THE CURRENT PROBLEMS ARE BEING ADDRESSED BY A NEW ROUND OF FIXES, BUT EXPERIENCE TO DATE WOULD NOT SUPPORT ANY OPTIMISTIC VIEW THAT PERFORMANCE WILL IMPROVE. IN LIGHT OF THE PREVIOUS TRACK RECORD AND IN THE ABSENSE OF NEW INFORMAION WHICH WOULD SIGNIFICANTLY ALTER THE PICTURE PRESENTED, I FIND IT DIFFICULT TO SUPPORT CONTINUED PRODUCTION OF THIS SYSTEM.***"

DETAILS ON THE ALQ-131 PROBLEMS ARE CONTAINED IN THE CLASSIFIED ADDENDUM TO THIS STATEMENT AND WILL BE DISCUSSED DURING THE EXECUTIVE SESSION.

BASED ON OUR FINDINGS WE INTEND TO RECOMMEND THAT THE SECRETARY OF DEFENSE REQUIRE AN INDEPENDENT ASSESSMENT BE MADE OF THE ALQ-131 AND ASPJ PROGRAMS TO INCLUDE AN EVALUATION OF THEIR RELATIVE COST AND PERFORMANCE CAPABILITIES. THIS EVALUATION SHOULD INCLUDE CONSIDERATION OF OTHER JAMMER UPGRADE PROGRAMS. UPON COMPLETION OF THE ASSESSMENT, THE MOST COST BENEFICIAL SYSTEM SHOULD BE DEVELOPED IN POD AND INTERNAL VERSIONS TO SATISFY INTERSERVICE REQUIREMENTS. THIS APPROACH COULD ENHANCE COMMONALITY AND REDUCE PROLIFERATION OF ELECTRONIC COMBAT SYSTEMS BY ELIMINATING (1) THE NEED TO UPGRADE MANY OLDER JAMMERS AND (2) THE ADDITIONAL DEVELOPMENT COST OF NEW JAMMERS.

THE INDEPENDENT ASSESSMENT COULD RESULT IN A CONCLUSION TO USE EITHER THE ASPJ OR ALQ-131 AS THE CANDIDATE COMMON-USER SYSTEM. IF THE ALQ-131 IS SELECTED, A FURTHER INDEPENDENT EVALUATION SHOULD BE MADE OF THE COSTS AND CAPABILITIES OF THE R/P AND CPMS TO ACQUIRE THE MOST COST EFFECTIVE POWER MANAGEMENT SYSTEM. WE ALSO INTEND TO RECOMMEND THAT THE SECRETARY OF DEFENSE INSTRUCT THE AIR FORCE TO SLOW PRODUCTION AND STOP FURTHER CONTRACT AWARDS FOR THE ALQ-131 BLOCK II JAMMER AND POWER MANAGEMENT SYSTEMS UNTIL OPERATIONAL TESTS PROVIDE ASSURANCE THAT PERFORMANCE WILL BE SATISFACTORY.

MR. CHAIRMAN, THIS CONCLUDES THE UNCLASSIFIED PORTION OF MY TESTIMONY. I WOULD BE PLEASED TO ANSWER ANY QUESTIONS YOU OR MEMBERS OF THE COMMITTEE MAY HAVE BEFORE THE EXECUTIVE SESSION.