



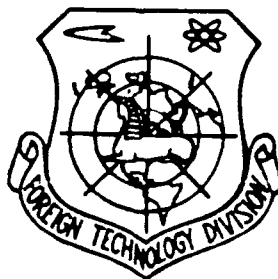
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FOREIGN TECHNOLOGY DIVISION



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**TITLE: FERRUNDI COMPANY SUPPLIES 4500 MODEL HEAD UP
DISPLAY DEVICES TO INDIA'S MIG-21 AIRCRAFT**

The 4500 Model head up display device is a type which is produced by the Ferrundi Company and is a kind of light weight head up display device and weapon aiming system which is capable of being supplied for retrofit use. The company in question will supply this type of system for India's 400 MIG-21 aircraft. Initially, this system was sold to Spain and fitted onto C-101DD aircraft. The U.S. Air Force also figured on purchasing a small number of the 4500 Model head up display devices for use on the Northrop T-38 trainer to carry out research on instrument flying rules and regulations.

The 4500 Model head up display device is a conventional non-holographic head up display. It is capable of supplying a 25° circumference field of vision. This has been capitalized and test manufactured by Ferrundi itself. It opts for the use of current technology in order to reduce technological risks and lower production costs.

The 4500 is capable of making use of alternating or direct current power sources. Its size is just suited to use with the BA Company's "Falcon" (illegible) type trainer and the Northrop Company's F-5 fighter plane. The company in question expected that this type of system would be capable of being suitable to use for retrofitting the majority of new model attack aircraft which currently exist.

This system has a comprehensive control-display device. Because of this, when retrofitting aircraft, it is not necessary to set up specialized control systems. The system opts for the use of modular type design. Later, when any component is changed, it is not necessary to readjust. Besides this, the 4500 also possesses system auto-supervision and control as well as automatic measurement and testing functions.

In visual display generating devices, application has been made of non-combustible fluorescence agent 53. This type of fluorescence agent is capable of similar use in night vision lenses. Night vision display devices also opt for the use of optical rasters. After the additional installation of 5 computer cards, it is also capable of simultaneous use in forward looking infrared suspension cabins. Their

double layer painted lenses are capable of raising the visual clarity. The pilot's display device wave form character and symbol generating device is capable of supplying two display devices. This type of capability has already gone through evaluation in the BA Company's "Crane" (illegible) aircraft. The system in question will be mounted in a 1/2 ATR box. If forward looking infrared is mounted in addition, then, by contrast, it is necessary to mount it in a 3/4 ATR box in order to facilitate putting in the additional electric circuit cards.

The system also opts for the use of totally programmable software. The Spanish Air Force is just in the midst of making use of this type of software to make the programming for its C-101DD trainers capable of being suitable for use in the F-18 fighter plane. The reason for this is the the C-101DD trainer planes which are fitted with 4500's will be used as high level training craft for the F-18.

Acting as a subsidiary product from the work of test manufacturing head up display devices, the Ferrundi Company also provided for the market a type of visual frequency camera. The latter is capable of being used in order to record the entirety of flight and combat data from head up display devices. This type of system is capable of recording automatically. It is not necessary for the pilot to be concerned about when to turn it on and off. It can record continuously for 8 hours. Moreover, processing is not necessary. It can just read out immediately.



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