

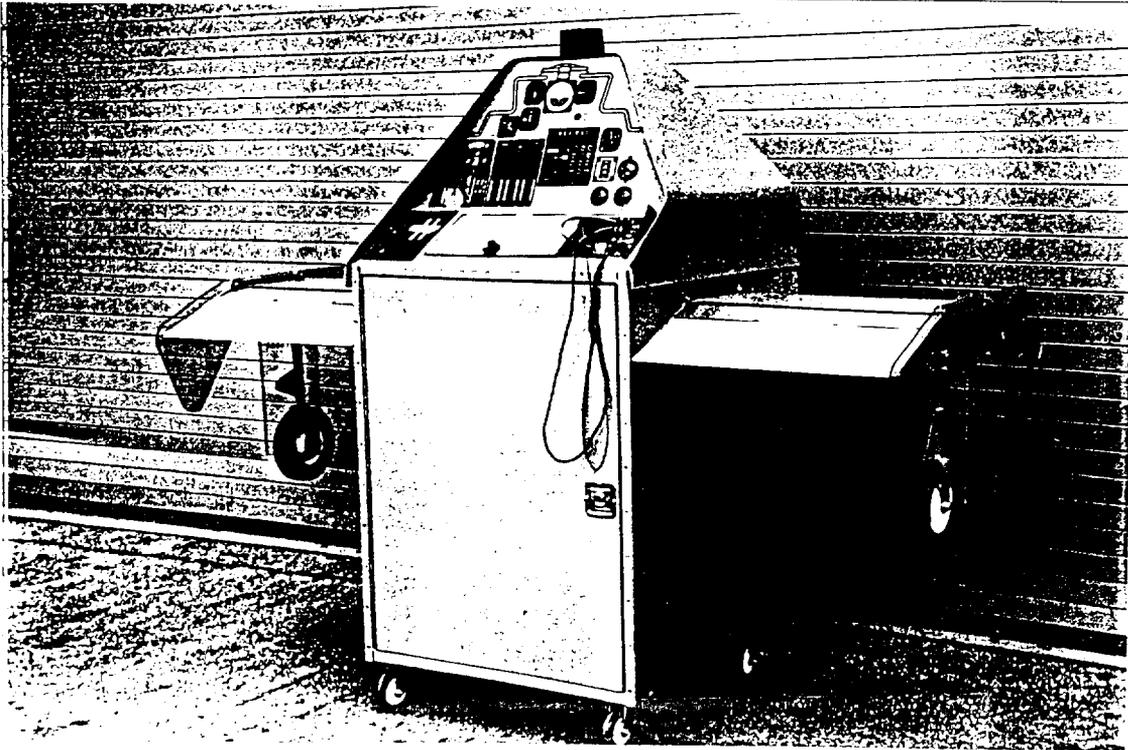
SUMMARY OF  
AIRCRAFT FLAPS AND LANDING GEAR TRAINER

AUGUST 1997

DEVICE 6E30

NAVAL AIR WARFARE CENTER  
TRAINING SYSTEMS DIVISION

ORLANDO, FLORIDA



**TRAINING CATEGORY:**

Basic Science (aircraft flaps  
and landing gear operation)

**ORIGINATING AGENCY:**

CNO/AIR

**SECURITY CLASSIFICATION  
OF DEVICE:**

Device 6E30 is unclassified.

**PURPOSE OF DEVICE:**

Develop Navy students'  
proficiency in troubleshooting  
aircraft flaps and landing  
gear systems.

**INTENDED USE:**

The trainer allows the student  
to perform operational system  
checks and to observe movement  
of the flaps and landing gear.  
Using a computer-controlled  
simulated digital multimeter  
(DMM), the student probes real  
cannon type connectors to  
identify and resolve simulated  
system malfunctions.

**FUNCTIONAL DESCRIPTION:**

Device 6E30 Aircraft Flaps and Landing Gear Trainer simulates generic aircraft landing gear control and flap control systems. The trainer consists of a support structure, cockpit with silkscreened components and simulated controls and indicators. In the Flaps System, both leading and trailing edge flaps have full range of motion. The Landing Gear System has two main landing gear and a nose wheel. The landing gear can be extended fully and locked into position or retracted into the wheel well.

Device 6E30 simulates voltage and resistance measurements during normal operation and when a malfunction occurs, allowing the student to perform operational system checks, observe normal operation of the flaps and landing gear systems, and develop logical troubleshooting skills. There are 101 landing gear and 91 flaps simulated fault conditions. The instructor enters malfunctions via the Instructor Control Panel (ICP), located in the compartment on the nose of the trainer.

The trainer's 486 computer runs at 66 MHz. It has 8 Mb RAM, 1 Mb DRAM (expandable to 64Mb), built-in math coprocessor, selectable cache memory, keyboard and monitor connections, built-in floppy disk drive controller, 1.44 Mb floppy disk drive, 270-Mb SyQuest removable hard disk drive, built-in IDE hard disk drive interface, external power connector, two RS-232

serial ports, and one parallel port.

**PHYSICAL INFORMATION:**

Dimensions: 78" x 48" x 65"

"Wings" extend 24" to each side

**EQUIPMENT REQUIRED (Not supplied):**

None

**POWER REQUIREMENTS:**

120 VAC (60 Hz) with a 5A circuit breaker

**PUBLICATIONS FURNISHED:**

6E30 Operations and Maintenance Manual, P-7194 (U).

6E30 Training Systems Utilization Handbook, P-7195 (U).

**PERSONNEL REQUIREMENTS:**

One student trainee

**CONTRACT IDENTIFICATION:**

Manufactured by Essex Corporation, Space and Defense Division, Huntsville, Alabama, under NAVAIRWARCENTRASYS DIV contract No. N61339-94-C-0035

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