Technical Document 667

SNOOPY
Characteristics and Mission Applications

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Final Report

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The information provided is in response to Public Law 96-480, Sec II, Part (a) — "It is the continuing responsibility of the Federal Government to ensure the full use of the results of the Nation's Federal investment in research and development. To this end the Federal Government shall strive where appropriate to transfer federally owned or originated technology to State and local governments and to the private sector."

Released by
E. P. Cooper, Director for
Science and Technology
SNOOPY

POTENTIAL MISSION APPLICATIONS

OPERATIONAL CAPABILITIES

Underwater pipeline or cable inspection
Pier piling inspection
Ship hull inspection
Sea water inlet and outfall inspection
Directing/observing diver work
Implantment of small devices
Video observation/recording
Artificial reef studies
Near-shore bottom surveys
Limited optical search
Sand movement, beach erosion, and sediment observations
Lake surveys and underwater searches
Dam inspections

Accession For

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Justification

Distribution/Availability Codes

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Snoopy is a small unmanned tethered vehicle developed for underwater observation. Its primary purpose is to function as a shallow-water mobile TV camera. It is equipped with two independently controlled hydraulic thrusters, automatically maintained depth control, an electrically controlled grabber, and lights for the on-board TV camera.

Television aiming is accomplished by maneuvering the vehicle. The simple and rugged design of Snoopy offers an economical and efficient means of underwater observation to depths of 100 feet. Snoopy can be operated from any suitable platform (small boat or pier) with minimal support requirements.

The vehicle characteristics are:

**General**
- Operating depth: 100 ft
- Weight: 50 lb (in air)
- Payload: 4 lb
- Mission duration: Unlimited
- Lighting: One 100-watt mercury vapor light
- Speed: 1.5 knots

**Power**
- Console: 110 Vac
- Vehicle: Hydraulic

**Mobility**
- Vertical: Hydraulic-operated variable buoyancy chamber
- Horizontal: Two hydraulic motors, 1/5 hp
Hydraulic System

Fluid Controls Inc. 1-hp, 110 Vac motor-driven variable displacement hydraulic pump.
1-gpm @ 1200 psi

Hydraulic system is used for propulsion and vertical control.

Optical System

Closed-circuit TV - compatible with VTR.
**SNOOPY** is a small unmanned, tethered vehicle developed for underwater observation. Its primary purpose is to function as a shallow water mobile TV camera.