

EXHIBIT I

FAIRFAX COUNTY PUBLIC SAFETY AERONAUTICAL SURVEILLANCE PROJECT

Background

For a period of approximately eight years Fairfax County Government has been operating a fleet of turbine-powered, rotary wing aircraft for the purpose of public safety including the monitoring of daily rush hour traffic over existing highways. Real time verbal information is transmitted to the Public Safety Communications Center (PSCC) for police as well as fire and rescue response to alleviate blockages and open roadways in the most expeditious manner. The PSCC currently passes this information to the Virginia Department of Transportation (VDOT) where appropriate public safety response is coordinated, traffic signals adjusted to expedite traffic flow, and variable message boards updated. The capability of transmitting real time video from an aircraft at the scene of an incident to the officials at the control centers responsible for incident management has the potential to dramatically improve the identification of, response to, and control of an incident.

In addition, with the advent of the video downlink, traffic engineering personnel would for the first time be offered the opportunity to evaluate the situation in real time and respond with proper equipment and personnel to expedite the movement of traffic immediately. The data compiled and analyzed by VDOT over a period of time, based on the air traffic patrols' verbal input, would be vastly improved and thus enhance VDOT's highway engineering capabilities, i.e., lane management, sign placement and roadway geometric improvements.

An autoscan receiving antenna will be installed on the roof of the Massey Building (660 feet above sea level) located approximately in the center of Fairfax County. The video receiving system will provide satisfactory line-of-sight reception from the aircraft throughout the county.

Fairfax County proposes to operate the system for a period of one to two years under an experimental radio license to determine the effectiveness of an expanded aerial video surveillance system. Factors to be examined under this project include the following:

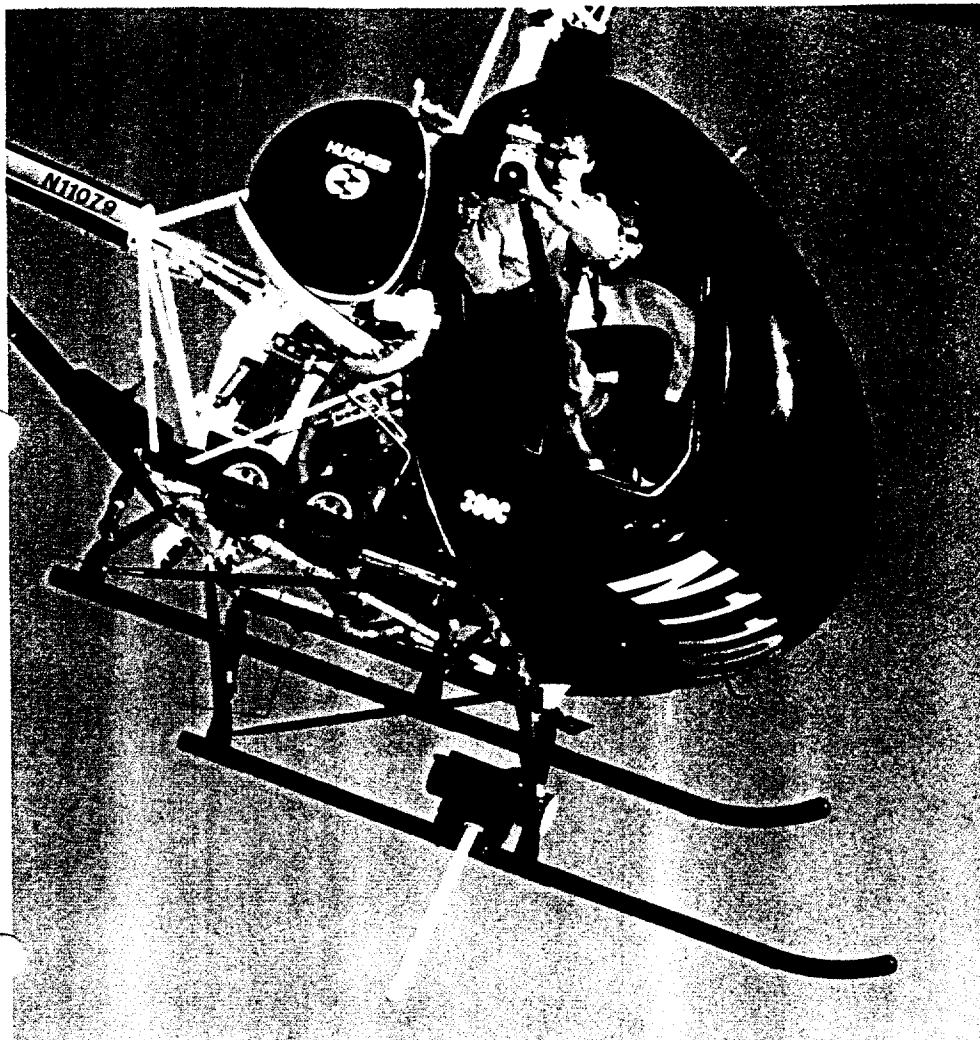
1. The effectiveness of real-time video traffic flow data available at the PSCC and VDOT Traffic Management Center.
2. The effectiveness and reliability of the video link between the rotary wing aircraft and the ground receiving station.
3. The capabilities and limitations of the remotely controlled gyro stabilized video camera.

4. The ability of the aircraft crew to manipulate the video camera over lengthy traffic patrols.
5. The effectiveness of aerial surveillance video downlink equipment for aiding the public safety community in the event of major accidents, toxic waste spills and major fires.

Consideration is being given to coordinating traffic information with neighboring jurisdictions in the Washington Metropolitan Area. Upon successful testing, Fairfax County plans to share traffic flow information with Montgomery county.

TAA-101 TR

Transmit and Receive Helicopter System



Features

- 16 db Gain
- Transmit and Receive Capability
- 360° Coverage
- Relay Capability
- Frequency Agility
- 12 Watts Output
- Skid Mounted Unit Conserves Helicopter Space.

Application

The TAA-101 1K Helicopter System is designed for use in helicopters for Electronic News Gatherings. Real-time video and audio may be sent from the helicopter or from the ground in a relay situation.

Recommended System

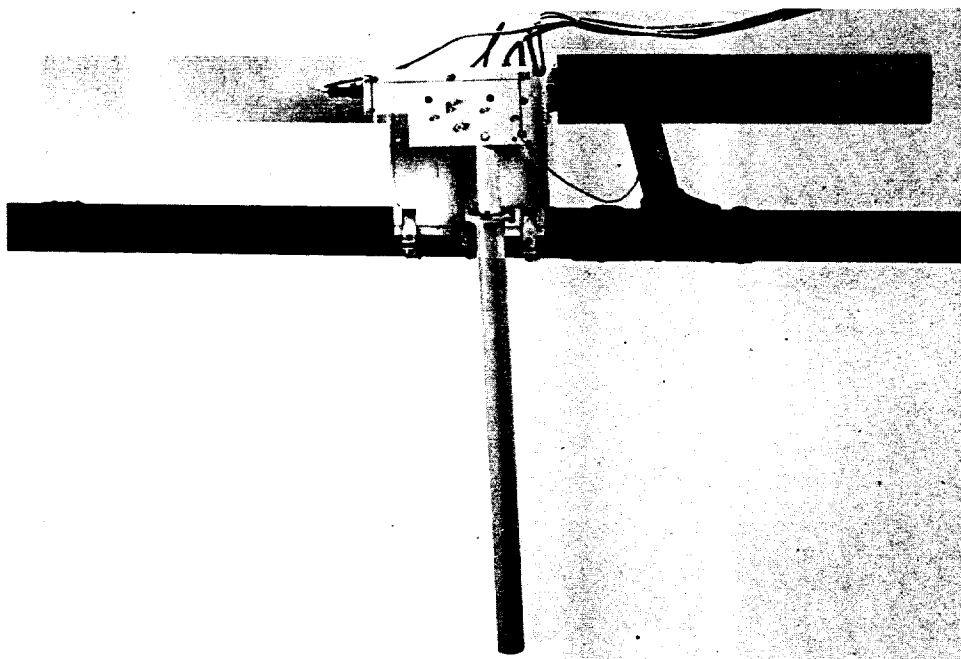
- TAA-101 TR Transmit and Receive Helicopter System
 - Actuator
 - Mount
 - TBA-6-0 Omnidirectional Antenna
 - TDS-101 Diplexer/Switcher
 - TMR-CP Backlighted Helicopter Control Panel
 - (2) TBA-16Y Yagi Antennas
- TBT-50A Frequency Agile Transmitter
- BMR-50A Frequency Agile Receiver

This system employs a 6 db omnidirectional antenna providing 360° azimuth coverage, and a greater than 40 mile range.

The TAA-101 TR also employs two long range unidirectional antennas. Two 10 db horn or 16 db Yagi antennas (fwd. and aft.) allow live news transmission from a helicopter at distances up to 100 miles. The horn provides 30° coverage from center and the Yagi allows 20° coverage.

This system, when equipped with our TBT-50A Series Frequency Agile Transmitter provides a dependable, low-cost, live helicopter news system. Our TBT-50A transmitter is a two pound, 21 channel, 2 GHz unit capable of either a 2 or 12 watt output. This transmitter will operate from 28 VDC aircraft power. One video channel and two audio subcarriers are provided.

BMS has added the ability to receive and relay news from hard to reach locations over long distances. Our BMR-50A Frequency Agile Receivers are completely synthesized for a full 21 channels. This helicopter system provides the broadcaster with the smallest, lightest and most efficient state-of-the-art flight pack available to the industry.



TBT-50A & B**2 GHz Frequency Agile Portable Transmitter****RF Section**

Frequency Range	1.990–2.110 GHz, 21 channels or 2.450–2.500 GHz, 9 channels (TBT-50B)
Power Output	2 or 12 watts selectable
Frequency Stability	.005%
Input Impedance	75 ohms
Video Input Level	1V p.p.
Deviation	± 4 MHz
Spurious & Harmonic Output	–65 dbc
Pre-Emphasis	Per CCIR 525/625 line
Frequency Response	10 Hz – 10 MHz
Video Sensitivity	8 MHz/volt

Audio Section

Available Subcarriers	4.83, 5.8, 6.2, 6.8, 7.5, 8.5 MHz (any two)
Input Impedance	600 ohm balanced
Output Level	–24 to –32 dbc
Frequency Response	10 Hz to 15 KHz 75 ohms pre-emphasis

Power Requirements

Input Voltage	current
12 VDC	6 Amperes (optional)
24 VDC	4 Amperes

Controls

Audio Level	67 or 54 db/uV ±2 db
Video Level	1 to 10 MHz/Volt
Power	switch select
Frequency Selection	switch select

Environmental

Temperature Range	–20° to +70°C
Humidity	up to 100%

Mechanical

Size	1.8" × 4.0" × 6.5"
Weight	2 lbs.

Connectors

RF Output	OSM
Video Input	BNC Female
Audio Input	PT 02-8-4P
Power	PT 02-12-10P

