

EXHIBIT #1

RADAR FREQUENCIES

The radar is tunable to one of 11 fixed frequencies listed below. When in the frequency agile mode all eleven fixed frequencies are brought into operation.

9237 Megahertz
9253 Megahertz
9275 Megahertz
9293 Megahertz
9307 Megahertz
9324 Megahertz
9345 Megahertz
9364 Megahertz
9383 Megahertz
9400 Megahertz
9421 Megahertz

EXHIBIT #2

(a) Program of research and experimentation

TCOM L.P. has developed small unmanned tethered aerostat systems. This system is to carry a surveillance radar to an altitude of approximately 2500 feet AMSL. While parked at this altitude the radar will be scanned to survey the surrounding area in a 360° arc. Command and control and video display will be remoted to the ground via fiber optic links.

(b) Specific Objectives

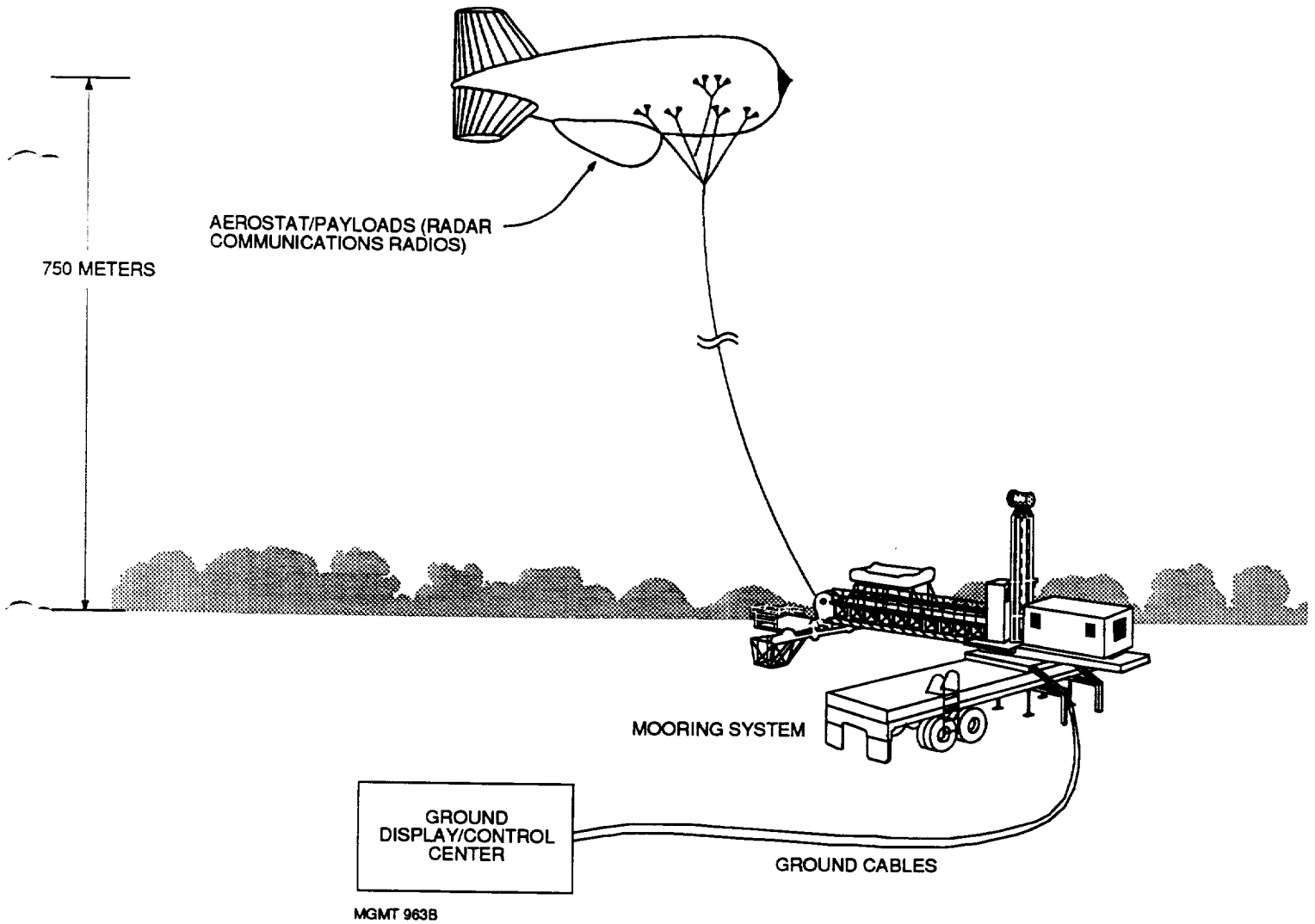
The specific objectives are to test and demonstrate the capabilities of the system to detect small targets and objects on the surface of the ocean while continuously providing wide area surveillance. During the tests it will be necessary to define the condition of the sea, i.e. sea state.

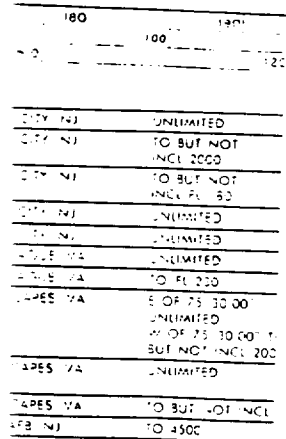
(c) Program contribution

Systems of this nature have been used for radar and communications use for applications in the United States and in foreign countries. The full scale working prototype will be used to test and demonstrate the capabilities of the systems for potential customers. In addition, the customer will obtain a better understanding of the system which allows additional fine tuning of the customer requirements.

The radios are to be used to contact surface targets and observation aircraft for test coordination and verification purposes. They will be used intermittently to direct the simulated targets and observation craft and to verify that the craft are on station or need to be moved to a new station. Observers in the aircraft will take pictures of the surface targets and the sea and confirm via radio that this task has been accomplished. Only one frequency in the 118.0 - 135.975 MHz band need be assigned, however, it will have two separate but not simultaneous uses, i.e. from the aerostat and from the target boat.

Exhibit 3a. Vertical Profile of Test System





1. AEROSTAT AREA OF OPERATION CLEARLY DEPICTED ON NOAA SECTIONAL (WASHINGTON).
2. AIRPORT CONTROL TOWER WILL BE NOTIFIED BY TELEPHONE WHEN AEROSTAT IS AIRBORNE, BY THE TEST DIRECTOR. THIS PROCEDURE HAS BEEN FOLLOWED SINCE 1972 ANYTIME THE AEROSTAT IS AIRBORNE.

TIME OF USE†	CONTROLLING AGENCY
5 IN ADVANCE BY AM	EDC CNR
INTERMITTENT BY NOTAM	EDC CNR
INTERMITTENT BY NOTAM	EDC CNR
INTERMITTENT BY NOTAM	EDC CNR
1430	EDC CNR
10 1700 MON-FRI	
5	RICHMOND AFB
5 INTERMITTENT	EDC CNR
5 INTERMITTENT	EDC CNR
5 INTERMITTENT	EDC CNR
INTERMITTENT SR-SS MON.	EDC CNR
INTERMITTENT SR-SS MON.	EDC CNR

include FL 180 unless stated otherwise and return a

EXHIBIT #4

Obstruction Clearance

The site where this experiment will occur is the TCOM, L.P. aerostat site where aerostats have been fabricated and flown since 1972. Since that time, arrangements have been made with the Federal Aviation Administration (FAA) and the US Coast Guard concerning aerostat operations inside the Airport Traffic Area (ATA) for the Coast Guard Air Station (CGAS) at Elizabeth City, NC. Following is a synopsis of the arrangement:

1. The applicable aeronautical charts (Washington sectional and the World Aeronautical Chart (CG-21) have been marked with a note concerning the operation of the aerostat.
2. All airborne aerostats continuously illuminate the air with strobe lights visible to aircraft from any aspect angle.
3. Prior to outhaul of the aerostat, the CGAS Elizabeth City control tower is notified telephonically that an aerostat flight is about to commence. At the conclusion of the inhaul process, the tower is again notified that the aerostat is no longer airborne. The control tower personnel relay the advisory of a tethered balloon to all inbound and outbound aircraft which are also operating in the ATA during the time when the aerostat is aloft.
4. When airborne, the aerostat is at a maximum altitude of 3,000 feet Mean Sea Level (MSL). Since wind has an effect on the aerostat flying position, with respect to the surface of the earth, the predicted position of the aerostat under maximum wind conditions (blowdown) will not exceed 0.5 Km from the tether attachment point, at the mooring site.

EXHIBIT #5

Radio Equipment

As explained in Exhibit 2 the radio equipment will be used for communications between the aerostat (base) site and the sea borne target boat and observation aircraft. The aircraft used will include a licensed radio operating in the 118 to 135.975 MHz band. The aerostat will carry a similar radio, controlled from the ground. Both of these will operate on the same frequency and be used intermittently in the test control process. In addition, it is planned that an identical 30 watt transmitting radio be licensed for use on the sea borne target boat. This radio also will be used only intermittently on the same frequency as the others. The boat based radio will be removed from the craft when the tests are not scheduled. The portable radio equipment placed on the boat for test conduction will be FCC type accepted.