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AVIAN TRAINING PROGRAM

FINAL REPORT

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28 December 1974

[redacted]

AVAIN TRAINING PROGRAM
Contract Order No. [redacted]
Final report (No. 7)

INTRODUCTION:

Chronologically, the 7 months which ended this contract period was 5 months shorter than preceding contracts. It did, however, produce the most positive results with relation to the TACANA operation to which it was devoted.

Experience and knowledge acquired during former contract periods was a strong factor although it was during the months just past when all the right components came together at the right time.

Additional training procedures were developed, such as overflight of bird with camera in strange areas.- bird flying from one building window to another up to distances of 1 mile. - flying bird locating and flying into window of moving car or to an operator who wears specific items of apparel.

Feasibility tests were made in package orientation in which the determination was made that a bird can orient a compass, or other object, to a given direction.

There are, at the present time, a stable of trained birds capable of performing a number of behaviors which could readily be adapted to a variety of scenarios.

Following is a list of trained birds, comprised of 4 different species. It is to be noted that these birds, once trained, never lose acquired behaviors. It is necessary, however, to recondition them again for a period of 2 to 3 weeks after they have been idle for any length of time.

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BIRDS ON HAND:

	untrained	trained
Red Tail Hawks	0	8
Harris Hawk	0	1
Ravens	5	5
Golden Eagles	0	2
Falcons	4 (partly)	1 (fully)
	9	17
TOTAL	26	

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LOCATION CHANGE:

A decision between the Program Director and the Contractor was reached early on in this contractual period to change the base of operations from San Clemente Island, California to Point Loma, California. Both of these locations are Navy Undersea Center Installations and the proper clearance from them was first obtained before the move was made. There were a number of reasons for this change. We list the most important of these in the following:

SAN CLEMENTE ISLAND:

Objectional features:

a. Weather conditions, wind direction particularly, was contrary to any existing condition which might be expected at site of final task.

b. Weather severity, especially during winter months, precluded working a full schedule. Due to geographical location and open sea exposure there were several weeks when wind velocity was so great it was impossible to work more than 1 or 2 days per week.

c. Isolation with regards to maintenance support for vehicles, both automobiles and boats, was always a serious problem. When breakdowns occured parts would have to be transported from the mainland. This caused unreasonable delays due to the erratic air service to and from the mainland.

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SAN CLEMENTE, CONT.

d. Further support for mechanical difficulties was non-existant. Personnel who should have been attending to training schedules were often involved in mechanical work they were not properly equipped to perform.

POINT LOMA:

This location has resolved most of the aforementioned problems. Progress in training has been accelerated considerably. Weather conditions have been favorable. North west winds have been the rule. This would be the relative in-shore off-shore direction to be expected within 10 miles of any mainland.

TELEMETRY:

A number of telemetry systems have been tested on this project. None of them proved satisfactory until the one presently in use was acquired. Its use immediately allowed the flight range of the vehicles to be extended with a margin of safety. Recounting the scenario in question, takes into consideration the fact that the vehicles are in sight of the operator for only a short time. This poses a substantial risk during the initial training during the period of time when the distance is first being extended.

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TELEMETRY

The telemetry system consists of 2 units - a small beacon, weighing approximately 50 gms. and which is attached to the vehicle. The other unit is a portable direction finding receiver. Attached to the receiver is a hand held antenna which produces a null and peak mode in relation to the direction of the beacon. The system is in use from the first when the vehicle is started only a few yards to and from the boat.

Until the vehicle has flown several miles to and from the boat it is still in the learning process. He is still learning how to handle wind velocities and how to gain sufficient pitch, or altitude, required for such a flight.

In the beginning he may make mistakes. If he comes in too low from either direction he may be attacked by resident birds. This can cause confusion and panic. Although the vehicle eventually learns to control these situations he is vulnerable in the beginning and the telemetry provides a means of recovery under such conditions.

When the bird has acquired a range of 5 miles he is considered to have the necessary training to go all the way. At this point it would be possible to eliminate the telemetry. Its use, however, is continued as a safeguard.

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PROGRESS:

Of the 5 birds being used on the TACANA operation 1 has a physical handicap which eliminates it for further training. Attempts are being made to trade it for another bird suitable for this project.

3 additional falcons, acquired during this contract time, have just recently been released from quarantine. They are presently in training and show promise of completing their training well within the limits of this schedule.

The remaining bird is considered to be ready to perform the scenario at this time. He is subject only to additional training which includes a sail boat needed for recognition purposes on the outflight. This aspect will move forward as rapidly as the logistics of acquiring a suitable boat and other related factors are resolved.

CONCLUSION:

The conclusion of the Contractor is that the schedule as it is presently proposed can be met if all the necessary elements are available in time to allow for proper final training.

Respectfully,

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