

FY 2000 Mid-Atlantic Turtle Survey Flight Report

Project: Turtle Aerial Pilot Study (TAPS)

Dates: Depart USCG Air Station Cape Cod July 27, 2000
Conduct Turtle Survey July 28-31, 2000
Return USCG Air Station Cape Cod August 1, 2000

Area of Operations: Virginia and Delaware Coastal Waters
(Shoreline to 40 nautical miles offshore, See Map)

Platform: NOAA Twin Otter (NOAA 57)

Personnel: David Potter NMFS, NEFSC, Woods Hole Laboratory
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Pilots:
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Introduction:

The survey was designed to evaluate a twin team survey approach to resolve g(0) for turtles and to evaluate the platforms capability to conduct this type of survey.

Project Description:

The survey team relocated from the USCG Air Station Cape Cod to Patrick Henry Airport in Newport News, Va. Aerial surveys were flown on four consecutive days in July attempting to fly ten (10) 40 nautical mile tracklines/day. These transects were repeated as often as possible to form replicate samples.

Survey teams comprised of two observers using the large forward bubble windows coupled to a dedicated data recorder, two observers using the smaller aft bubble windows coupled to a second dedicated data recorder, and a belly window observer capable of communicating sightings to the second dedicated recorder or independently recording his/her sightings on a tape recorder.

The forward three person team (two observers and recorder) were isolated from the remaining observers and recorder on an independent intercom system. The rear team of bubble and belly window observers and data recorder were on the aircrafts standard intercom system. This

arrangement allowed for sighting teams being independent and uninfluenced by the second team. Observers would rotate from side to side on half hour intervals, the belly window position remained the same person for the entire flight. Data was recorded for each team on a laptop computer running the computer program Tandem, GPS data and time is recorded every few seconds and with each observation. Additionally a laptop computer recorded the sea surface temperature averaged every minute continuously throughout the survey.

Results:

The survey flew 1480 nautical miles of tracklines from 13 transects of approximately 40 miles in length. Tracklines were intended to be flown four times, however fog prevented perfect duplication but most track lines were repeated at least three times.

The following table represents the sighting information for the front and rear teams, keep in mind the rear team includes the belly window observer.

Front Team

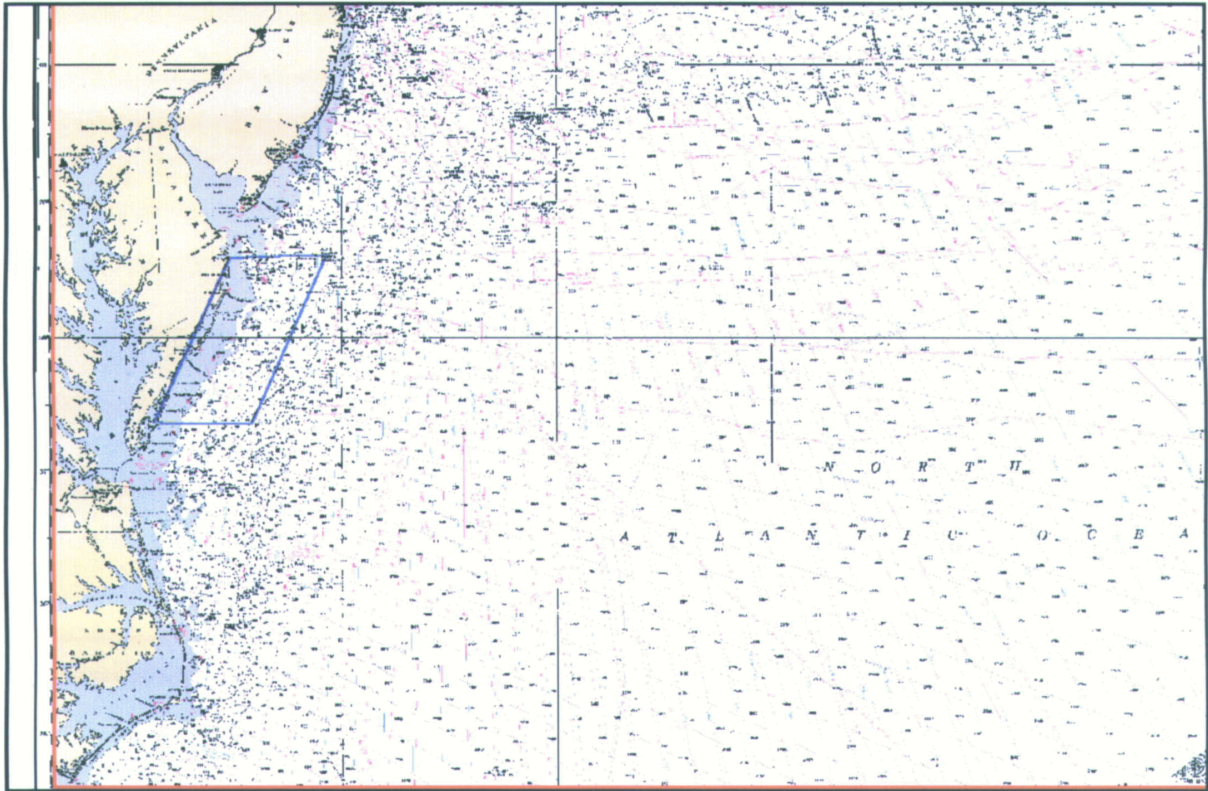
July	28	29	30	31
Loggerhead	46	82	94	52
Leatherback	1	9	4	6
Kemps Ridley	2	1	0	1
Unidentified Tu	5	6	2	1
Bottlenose	22	61	32	45

Rear Team

July	28	29	30	31
Loggerhead	78	126	148	74
Leatherback	3	8	11	6
Kemps Ridley	1	1	1	9
Unidentified Tu	1	0	0	3
Bottlenose	39	104	115	61

These data do not indicate or identify duplicate sightings and represent raw data only.

Abundance estimates and estimates of $g(0)$ will be forthcoming when the analysis is complete.



Map: The area surveyed during TAPS (blue box).