6-7-15: Further questions/clarifications (in blue) in response to the answers given below:

CONGRESSIONAL - Q&A Response to CM Hanna on Newport Test Facility

QUESTION 1: Are there any factual data points to fully assess the environmental impact of the Newport Antenna Radiation Pattern Test Facility on the surrounding area?

ANSWER 1: Yes, environmental impact studies have been performed in and around the Newport Test Site; however, these studies do not specifically survey RF used during antenna radiation pattern testing (which is the information that seems to be sought in the CI). These Environmental Baseline Studies (EBSs) do study the surrounding environment, history of a site and investigate any impact to the land, flora and fauna of the areas surveyed. In other words, an EBS searches for potential stress in the natural environment and investigates the cause of that stress. Outside of some minor waste disposal on site (which was remediated), no other environmental concerns were identified. The environmental studies have shown no recognizable impact to the living things at and around the Newport Test Site which can be associated with RF testing.

The Environmental Baseline Study was conducted/performed in March 2000 (Atch 1) with a follow-up in July 2002 (Atch 2). Environmental Baseline studies were also performed on land adjacent to the Newport Test Site in anticipation of purchasing said land to limit/prevent encroachment (Atch 3 & 4).

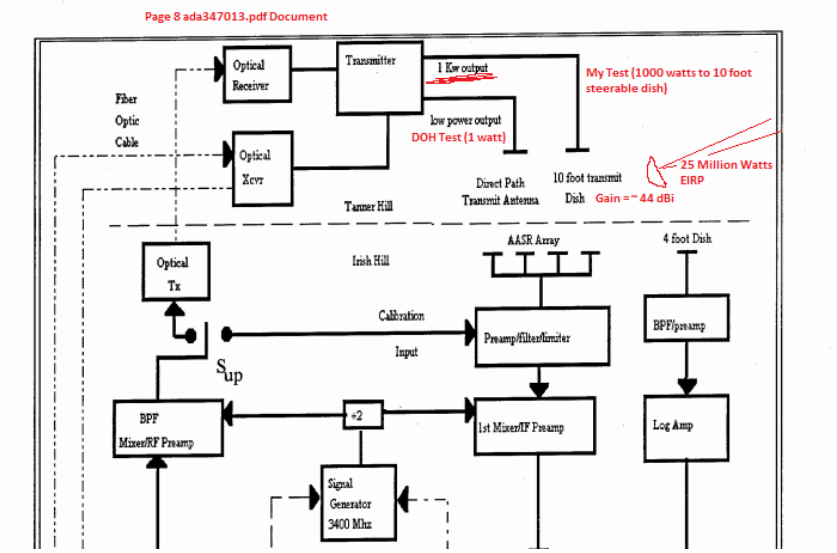
Additional information New York Department of Health (DOH) officials received a copy of Attachments 1-4 during their Newport Test Site visit on 6 May 2015.

Has any biological testing been done on nearby animal life to look for any possible effects of EM radiation from the site?

QUESTION 2: Provide information about the Health Risk Assessment by the New York Department of Health on the transmitter in question. Also estimate test result if available.

ANSWER 2: On 6 May 2015, officials from the New York Department of Health (DOH) observed personnel from the USAF School of Aerospace Medicine (USAFSAM) conduct electromagnetic field testing of a 28 foot and 6 foot antennae at the Newport Test Site at several different non-ionizing radio frequencies at 1 watt power level. The purpose of the testing was to determine the occupational safe distance and the general public safe distance from these antennae during operational use. The safe distances are dependent upon the frequency being used and the power of the signal.

Clarification #1: Please confirm that per public document ADA347013, the 10 foot steerable dish on Tanner Hill has a high power 1000 watt feed to the parabolic dish.



It is important to note that (1) none of the frequencies used at Newport are at the ionizing range (e.g., x-rays, gamma rays) of the electromagnetic spectrum, but are instead at the non-ionizing radio wave range, (2) tests are conducted at or near the 1 watt power level, and (3) because transmitting data can be extrapolated from antenna receiving patterns, only RF antennae receiving testing is conducted at Newport (e.g., the planes being tested are only 1:1 models/shells without any instrumentation, radar or radios).

See Clarification Questions #2 Below

Verbal reports from USAFSAM personnel indicate that the electromagnetic field testing of the frequencies and power levels used at Newport comport with internationally recognized standards for occupational and general public safe distances, and that the non-ionizing aspect of the frequencies used do not present an occupational hazard to lab personnel or to the surrounding public.

DOH officials, while specializing in the ionizing range of the electromagnetic spectrum (x-ray machines and CAT scans), observed, understood, and independently evaluated the measurement readings taken by USAFAM personnel during the electromagnetic field testing of the non-ionizing RF frequencies used at Newport. Verbal reports from DOH officials confirm the parameters within which the AF is operating at Newport comply with applicable rules and regulations.

Because the Newport investigation is a part of a larger DOH effort (DOH is also evaluating Rose Valley landfill, a potential source of contamination and cause of the unexplained cancer rate, located in Cold Brook, NY which is nearby Newport), results of the Newport investigation will not be available until DOH publishes its investigation report.

Additional information:

(1) The IEEE International Committee on Electromagnetic Safety published a report titled IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Field, 3 kHz to 300 GHz, on 19 April 2006. (Atch 5) (2) According to Bret Rogers, Health Physicist, USAFSAM, the standards issued by Atch 5 are directly applicable to the Newport Test Site and that there is no correlation between the RF used at Newport and lymphoma (Atch 6).

(3) According to Ms. Aura Weinstein, M.P.H., Director, Cancer Surveillance Program New York State Department of Health, there are less than 6 cases of pediatric cancer of which only some were confirmed as lymphomas. Ms. Weinstein also stated the consensus in the

scientific literature is that these are not associated with exposure to nonionizing radiation (Atch 7).

(4) The RF used at the Newport Test Site conforms with Chapter 7.11 of the National Telecommunications and Information Administration's (NTIA) "Manual of Regulations and Procedures for Federal Radio Frequency Management" (Atch 8). Chapter 7.11 requires that for "…measurement of antenna characteristics…the power delivered to the antenna under test shall be for the sole purpose of carrying out the desired measurements and shall be no greater than is required by the measurement technique being utilized." Thus, testing at Newport is conducted at the 1 watt power level, which no greater than is required by the measurement technique used there.

(5) On 6 May 2015, DOH officials were also provided a copy Attachment 5 and a copy of AFI 48-109, ELECTROMAGNETIC FIELD RADIATION (EMFR) OCCUPATIONAL AND ENVIRONMENTAL HEALTH PROGRAM, dated 1 August 2014.

QUESTION 3: Provide an inventory of public information pertaining to the list (see below) provided by Mr. Stewart Simonson.

ANSWER 3: (response follows each item)

1. Antenna Radiation Test Dates/Durations: public information does not exist; however see paragraphs A and B below.
2. Antenna Radiation Patterns: public information does not exist; however see paragraphs A and B below.
3. Antenna Power: public information does not exist; however see paragraphs A and B below.

4. Antenna Gain: public information does not exist; however see paragraphs A and B below.
5. Antenna EIRP (Effective Isotropic Radiated Power): public information does not exist; however see paragraphs A and B below.
6. Antenna Duty Cycle, including Pulse Repetition Factor (PRF), Pulse Duration, etc.: public information does not exist; however see paragraphs A and B below.
7. Antenna targets and distances (i.e. on the hilltops and in the air): public information does not exist; however see paragraphs A and B below.
8. Directional antenna beam-widths and beam directions: public information does not exist; however see paragraphs A and B below.
9. Antenna Make/Model/Phased Array/Parabolic: public information does not exist; however see paragraphs A and B below.
10. Radiation power levels detected at Newport Rd (approx. 2000 feet below) and the surrounding area. Radiation levels should include peak pulsed power: public information does not exist; however see paragraphs A and B below.
11. Radiation levels detected at/around the RF fencing below the test sites: public information does not exist; however see paragraphs A and B below.
12. Radar Make/Model/Mfg. tested: public information does not exist; however see paragraphs A and B below.

Thanks!

A. PA-cleared, publicly releasable information pertaining to the Newport Test Site but not specifically responsive to the 12 items above is:

1. Pamphlet titled “AFRL Antenna Radiation Pattern Measurements Facility Newport NY” which explains the Newport site location, setup, and testing capabilities. “Radiation” as used herein refers to the directional (angular) dependence of the strength of the radio waves from the antenna or other source (Atch 9).

Clarification #2

Per the above pamphlet, please confirm that military subcontractors utilized the Newport, NY range for the following uses:

“Range Uses

***In addition to antenna pattern and isolation measurements**, Newport is an ideal facility for characterizing **installed** system level performance parameters. The performance of direction finding systems, communications systems, EW systems, and experimental systems can be assessed in a realistic free-space environment with both the antenna and the system hardware in the loop.”*

Please confirm that “EW” stands for “electronic warfare” and that these additional antennas are tested and installed “in the loop” by military contractors at your site. This would also agree with the following public press release:

http://www.prnewswire.com/news-releases/full-scale-f-35-pole-model-begins-mission-systems-testing-75375517.html

Which States:

“ FORT WORTH, Texas, Nov. 12 /PRNewswire-FirstCall/ -- Multi-phase Mission Systems aperture testing is under way on a full-scale model of the Lockheed

Martin (NYSE: LMT) F-35 Joint Strike Fighter at the Air Force Research Laboratories' Newport, N.Y., test facility.

The model, manufactured by Advanced Technologies, Inc., of Newport News, Va., is being used to measure ***installed antenna pattern****, gain and phase measurements for the F-35's Communication, Navigation & Identification (CNI) and* ***Electronic Warfare (EW)*** *systems.*

The aperture test program, a major Mission Systems development milestone, ***began on Oct. 1 with testing of the CNI system's upper L-Band antennas from Ball Aerospace. Early test results show the pre-production apertures meet or exceed pattern and gain requirements while installed in the F-35 model.*** *Additional tests are evaluating the performance of the CNI system's Satellite Communications, Global Positioning System and UHF/VHF communications apertures. EW aperture testing will begin in 2005.*

"The beginning of aperture testing in this world-class test facility is a significant achievement in the F-35 JSF program," said Bob Elrod, Lockheed Martin executive vice president and F-35 JSF program general manager. "This is a key milestone on the way to our first flight date in 2006."

Future test phases will validate CNI and EW production-antenna performance in a "clean" aircraft configuration *(no external stores, landing gear up, doors closed). Later tests will also evaluate the impacts of various external weapons configurations on aperture performance. The* ***installed-antenna*** *data will be used for design validation, performance verification, risk reduction, improved system performance modeling and simulation, and reduction of the number of F-35 flight-test points required to verify avionics performance. The F-35 model will also be used to measure* ***antenna-to-antenna isolation measurements*** *to support F-35 radio frequency (RF) compatibility verification. The model weighs 8,500 pounds and was produced over a 44-week period. With interchangeable wing and tail components, it has the capability to simulate all three F-35 variants."*

Which also agrees with this military contractor's statement

http://www.advancedtechnologiesinc.com/antenna-pole-models.php

"ANTENNA & POLE - RADAR CROSS SECTION (RCS) MODELS

Radar cross section models

ATI produces full-scale model test articles with replicated external surfaces for radar cross section ***and antenna placement testing****. State-of-the-art composite materials and core are formed and cured in soft or hard tooling to produce the skin sections. These skins are mounted onto light aluminum truss frames to produce the final external configuration."*

And this public IEEE research document:

Full Scale Aircraft Antenna Measurements at the Air Force Research

Laboratory, Newport Measurement Facility

Air Force Research Loboratory, Rome Research Site

"Today, the range continues to be one of the few ground test facilities that can provide detailed **installed antenna performance data on full-scale aircraft antennas**. The range provides a cost effective alternative to flight tests for developmental aircraft antenna evaluations and is also well suited for ordinary far field testing of **large aperture antennas**."

Also, per public document ADA250435, please confirm an

"F-15 Electronic Warfare Systems The AN/ALR-56 and AN/ALQ-135 were evaluated at the Newport Antenna Measurement Facility prior to and during flight tests."

Also, per public document ADA344474, please confirm that phased array radars have been tested at the Newport, NY facility in addition to parabolic dishes as shown mounted at Newport below:

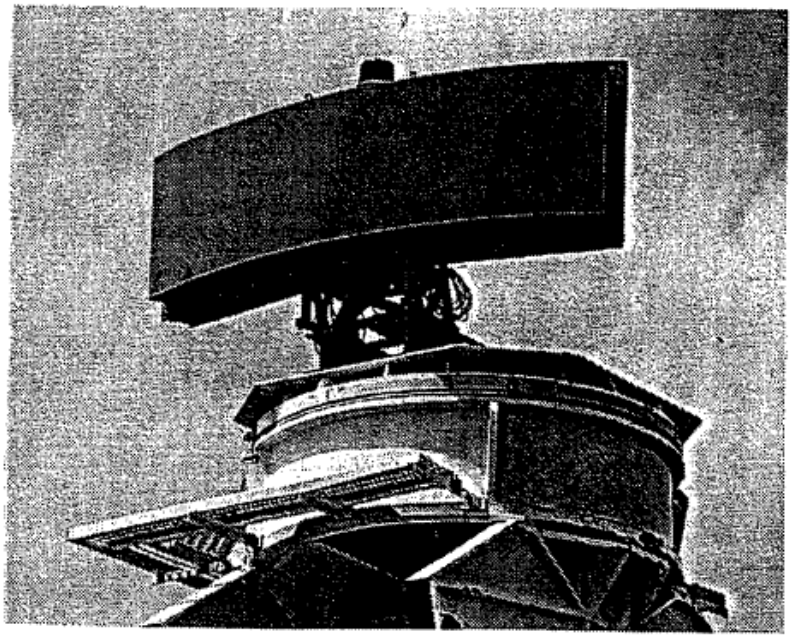


Figure 1. Phased Array Antenna

1. Introduction

An Optically Controlled Phased Array Antenna developed by Hughes Aircraft under an ARPA/Rome Laboratory research program was tested at Rome Labs Newport Test Site. The first round of tests were conducted in June/July 1995 and the second round of tests were in May/October 1996. The antenna is a 3 foot by 9 foot phased array capable of a scan angle of

Also, per public document afd-080109-060 please confirm the following is true:

Purpose:	The Newport Antenna Research facility is used to evaluated antennas and antenna systems in a far field "free space" environment, to determine radiation pattern changes due to airframe effects, to evaluate antenna-to-antenna system coupling and to support an advanced antenna measurement technology development. **This facility provides the capability to conduct accurate repeatable measurements of the performance of antennas installed on airframes, complex multi-beam and phased arrays, advanced ultra low sidelobe arrays and multiple antenna systems and to conduct advanced antenna measurement technology research.**

2. The "NEWPORT Mission Explanation Video" (Atch 10).
3. In-House Report for Forty Years of Research and Development at Griffiss Air Force Base. The Newport Test Site is specifically mentioned on pages 125, 145, 164, 187, 206 and 207 (Atch 11).

B. Non-public technical data and information relating to the 12 items is as follows:

1. Twelve Technical Reports (Distribution C) for the Newport Test Site from 1980 to present are available through Defense Technical Information Center (DTIC) (Atch 12).
2. Report providing the antenna patterns for the parabolic transmits antennas located at the Newport Test Site, including dish diameter and frequency in GHz (Atch 13). This report has not been submitted to PA.
3. A list of the components of the transmitters used at the Newport Test Site. This list has not been submitted to PA. (Atch 14)

14 ATTACHMENTS:

01) "EBS (Environmental Baseline Survey) Irish Tanner Hill 2" dtd March 2006.

02) “EBS NFR (no further response) Newport” dtd July 2002

03) “Denslow Property” (an EBS) dtd October 2010

04) “Riccioni Property” (an EBS) dtd October 2010

05) “IEEE C95 1-2005 (2),” Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Field, 3 kHz to 300 GHz” dtd 19 April 2006

06) Bret Rogers’ email to William E. Brain dtd 16 April 2015

07) Aura Weinstein’s, M.P.H., email to William E. Brain dtd 05 Feb 2015

08) NTIA’s Manual of Regulations and Procedures for Federal Radio Frequency Management, Chapter 7.11 dtd May 2014 (Entire Manual available at: http://www.ntia.doc.gov/page/2011/manual-regulations-and-procedures-federal-radio-frequency-management-redbook <http://www.ntia.doc.gov/page/2011/manual-regulations-and-procedures-federal-radio-frequency-management-redbook>)

09) Pamphlet titled “AFRL Antenna Radiation Pattern Measurements Facility Newport NY” dtd 2-12

10) The “NEWPORT Mission Explanation Video” dtd 2011

11) In-House Report for Forty Years of Research and Development at Griffiss Air Force Base dtd 1992

12) Spreadsheet containing DTIC reference numbers for Newport Test Site technical reports since 1980 dtd 20 Apr 2015

13) Report titled “Antenna patterns for the parabolic transmit antennas” dtd 20 Apr 2015

14) List titled “Newport Sig and amps” dtd 20 Apr 2015