CNATRA
HQ COMMUNICATOR

SEPTEMBER 2020

OPEN

DANGER
EJECTION
SEAT
DANGER
DANGER

'SHREDDER' HALEY

NAVAL AIR TRAINING COMMAND

NEXT STOP:
MARS

Jessica Watkins,
NASA Astronaut,
completes primary

/ MISSION BRIEF

To safely train the world's finest combat quality aviation professionals, delivering them at the right time, in the right numbers, and at the right cost to a naval force that is where it matters, when it matters.

/ WE ARE TEAM CNATRA

• We are "all in" for the mission
• We are professionals dedicated to improving ourselves, our team, and the naval services
• We lead with integrity, moral courage, and discipline
• We are accountable to the nation, our service, each other, and our families
• Integrity is our foundation

/ ADMIRAL'S SUGGESTION BOX

Got a suggestion? There are several ways to submit your suggestions to Rear Adm. Westendorff or COS:
1. Go to: https://adss.navy.mil/applications/00sb.aspx
2. Visit www.cnatra.navy.mil and click on "Contact" then "Contact Us" to find a link to the suggestion box.
3. Use the link on the SharePoint portal.
4. Use the suggestion box at the CNATRA quarterdeck.

/ON THE COVER

CORPUS CHRISTI, Texas NASA Astronaut, Jessica Watkins, greets her on-wing, Lt. Willy Walls, as she completes her final solo flight in the T-6B Texan II. Watkins will return to the Johnson Space Center in Houston, Texas, where she serves as a planner for the Mars 2020 Rover mission and is a collaborator on the Mars Science Laboratory team. *U.S. Navy photo by Anne Owens.*

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/ SEPTEMBER IN NAVAL AVIATION HISTORY

SEPT. 11, 2001: American Airlines Flight 77 is hijacked by terrorists and hits the Pentagon, causing 184 fatalities. Specific to DON, the fatalities are: 33 military personnel, six civilians, and three contractors. American Airlines Flight 11 and United Airlines Flight 175 hit the Twin Towers at the World Trade Center, New York City. United Airlines Flight 93 goes down in Shanksville, Pa., after passengers engage the hijackers.

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SEPT. 12, 1966: Gemini 11 is launched. Gemini 11s Commander is Charles Conrad Jr., Command Pilot. The mission lasts two days and 23 hours and includes 44 orbits at an altitude of 1368.9 km. An HS-3 helicopter from USS Guam (LPH 9) recovers the crew.

SEPT. 18, 1943: U.S. Navy aircraft perform aerial raids on the Tarawa Makin Islands, where the aerial photography taken proves to be fruitful for the oncoming invasion of the islands.

SEPT. 23, 1931: The first landing of an autogiro on board an aircraft carrier is made by Lt. Alfred M. Pride, USN, in a (XOP 1), onboard USS Langley (CV 1) while underway.

SEPT. 24, 1918: Lt. j.g. David S. Ingalls, while on a test flight in a Sopwith Camel, sights an enemy two-seat Rumpler over Nieuport. In company with another Camel he attacks and scores his fifth aerial victory in six weeks to become the Navy's first ace.

SEPT. 28, 1946: Lockheed P2V Neptune, Truculent Turtle, departs Perth, Australia on a long distance non-stop, non-refueling flight to the mainland United States that ends on Oct. 1 at Columbus, Ohio. The flight breaks the world record for distance without fueling at 11,235.6 miles over 55 hours and 17 minutes.

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The New Fat Albert C-130J

The Blue Angel logistics support aircraft known as "Fat Albert" has recently been replaced by the newer C-130J model, which was purchased from the United Kingdom's Ministry of Defense (MoD).

This newer model has advanced avionics and more efficient Rolls Royce AE 2100D3 turboprop engines and the newest six-bladed Dowty props. Compare this aircraft to the former Fat Albert, C-130T model that served the squadron for seventeen distinguished years and was equipped with older Allison T-56 engines with four bladed props.

The CNATRA N4 Class Desk, Mr. Mark Esposito, the NAVAIR PMA-207 and Cherry Point Fleet Support Team (FST) worked hard to expedite the procurement award with the Ministry of Defense and a maintenance contract with Marshall Aerospace Defense Group to perform inspections and modifications of the Royal Air Force KC-130J.

This process took two years from purchase to delivery with both the PMA-207/FST team and the original equipment manufacturer (OEM), Lockheed Martin, conducting engineering oversight. This model of C-130J is now one-of-a-kind in the Navy and Marine Corps inventory as the only C-130J model. As part of the modification, the aerial refueling capability was removed, which is why the "K" designation was removed.

Once complete, the Blue Angels, all-Marine Corps crew flew the long 4,500 mile trip across the Atlantic Ocean from Cambridge, UK to Fort Worth, Texas, on August 4, 2020. The stop in Texas allowed the Marine maintenance crew the two weeks necessary to perform the required engine maintenance inspections.

Because the former "Fat Albert", the older "T" model, is located at the C-130 School House in Fort Worth as a training aide, the Blues took the opportunity to pass the torch to the new Fat Albert III in the photo above. The last leg of the trip ended when Fat Albert landed at in sunny NAS Pensacola, Florida, its new home on August 17, 2020. Fat Albert is a welcomed addition to the Blue Angels family and will be a treasured sight for many generations to come.

Admiral Westendorff commended the men and women of PMA-207 and the C130J Fleet Support Team (FST), Engineering and Logistics, by naval message which read in part, "For your dedication and professionalism over the last two years in acquiring and converting a British C-130J to the newest Blue Angels Fat Albert aircraft. I truly appreciate the work that went into this project, from initial aircraft selection to contract development, modification, rework, configuration management and functional check flight. Your meticulous planning, attention to detail and hard work were key to knocking down roadblocks and finding ways to solve everything from foreign depot facility issues to funding and logistics challenges. Each and every one of you should be extremely proud of your great accomplishment. As you view this aircraft at a future air show or in a photograph, always take great pride in the fact that each of you made our Fat Albert a reality. Thank you for a job extremely well done!"

In future Blue Angels air shows, be sure to look for this new Fat Albert as it once again puts smiles on so many faces across all generations.

FORT WORTH, Texas The former Fat Albert, C-130T model, left, is replaced by the one-of-a-kind C-130J "Fat Albert III", right, and was welcomed to its home in Pensacola, Florida, on Aug. 17.
Contributed photo

The New TH-73A

Courtesy of N4

The Navy selected the new Leonardo TH-73A helicopter as the aircraft replacement for CNATRA's more than 40-year-old TH-57 Sea Ranger helicopter training platform.

This helicopter will be manufactured in Philadelphia, with the first delivery expected to arrive at Naval Air Station Whiting Field in Milton, Florida, in mid-January 2021.

Two additional aircraft are scheduled to deliver in February 2020 with three additional aircraft deliveries arriving every month for the remainder of the first year.

The TH-73A is described by one pilot as a modern helicopter with the latest digital cockpit that will provide rotary and tiltrotor training requirements into the foreseeable future.

This new helicopters will ensure the Navy has the capacity to train several hundred aviation students per year at Naval Air Station Whiting Field in Milton, Florida.

Initial factory Instructor Pilot training is complete. Government engineering and oversite personnel training is scheduled to begin in September, and the contractor maintenance training is scheduled to be completed 30 days prior to first aircraft delivery.

The current inventory of 113 TH-57B and C aircraft is scheduled to begin the "Sundown" process in October of 2021.

Upgraded Fire Suppression Systems Installed

On July 29th, AFFF W.W. Gay Contractor Supervisor Troy Ashby, installed three 22,000 gallon recovery tanks at Naval Air Station Pensacola, a major milestone in the upgraded fire suppression system for hangars 1853 and 1854.

Many hours were spent digging and preparing the massive 40 ft. x 50 ft. x 26 ft. hole. The actual install process took less than three hours.

This evolution requires constant communication and coordination to ensure minimum impact for aircraft maintenance. The project started in November 2019 and is expected to be complete December 2020.

PENSACOLA, Florida 22,000 gallon recovery tanks are installed at Sherman Field in an effort to upgrade fire suprpression systems *Photo by Michael Ellis.*

LONG ROAD TO RECOVERY

In March of 2004, the Navy received 165958 into their inventory at Air Test and Evaluation Squadron (VX) 20 aboard NAS Patuxent River for their experimental aircraft mission. 958 performed this mission from 2004-2018, when it was transferred to FRCSE and then to NAS Jacksonville for de-modification. It was ultimately transferred to CNATRA Training Air Wing Six at NAS Pensacola.

958 finished its de-modification and was subsequently inducted into ACI while at NAS Jacksonville in February 2018. During the ACI process, it was discovered that 958 had a crack in the RIB 1 area, which required the installation of a repair kit before the ACI could be completed. This delayed the completion of ACI into 2020.

During this extended timeframe, the aircraft clock was still ticking and the 120-month inspection came due. ACI does not have the capacity to perform the organizational-level maintenance testing of the ejection seats, so the decision was made to send the ejection seats to DYNCORP at NAS Pensacola to complete this requirement. DYNCORP Pensacola completed this inspection efficiently, returning the seats and survival equipment to full mission capable status within two weeks. DYNCORP's herculean maintenance efforts enabled FRCSE to complete the ACI and deliver 958 to NAS Pensacola in April of 2020.

DYNCORP Pensacola inducted 958 into acceptance inspection on 27 April 2020. While in the acceptance process, the "noted but not corrected" discrepancies were expeditiously repaired by DYNCORP.

Some of the discrepancies that took the most man-hours to repair were the outer-housing on the nose wheel steering cable damage (47.4 hours), left- and right-hand wing fuel leaks (46.7 hours) and lower aft cowling intake screen (28.4 hours). The DYNCORP maintenance team spent 528.8 total man-hours to get the aircraft prepared for a check flight.

The acceptance functional check flight was flown on June 18th, 2020 with only a few minor discrepancies that needed to be cleared to make the plane airworthy for student NFO training missions. Subsequent flights during the month of July were performed until a fuel leak in the wing area caused the plane to return to the hangar. DYNCORP maintenance found that the wing sealant needed to be cleaned out and reapplied, which took another 62.1 man-hours to repair.

Normally, this is not a difficult task however, it became Hangar 1853's turn to get its Fire Suppression System upgrade. This affected the ability to park 958 in spot designated to purge and vent the fuel tank extending normal repair time again.

DYNCORP worked through the fuel leak issue and got the plane back out on the flight line in time to prevent another check flight for long term down, returning 958 to a "Ready for Training" status on the flight schedule.

Bravo Zulu to the DYNCORP T-6 Program for all the hard work that went into 165958's long journey from an experimental aircraft to a valuable training asset in Training Air Wing Six. 958 is one of the oldest T-6A's in the Navy's inventory, but has flown a low amount of flight hours with a lot of time left in its service life to fly missions and produce Naval Aviators for fleet.

DYNCORP employees inventory and ensure positive tool box control

PENSACOLA, Florida DynCorp Employees Jorge Velez and Heather King inventory automated tool control boxes on Aug. 14.
Photo by Gene Mills

At NAS Pensacola, DynCorp T-6A implemented the latest innovative technology in tool control through the purchase of two 467 piece Snap-On Automated Tool Control (ATC) boxes.

The ATC boxes allow for automatic inventory of the box through the use of sensors that maintain 100% accountability of any tools removed/missing from the box. The ATC boxes eliminate the need for personal tool boxes, which reduces the man-hours required to inventory individually owned tool boxes at the beginning and end of each shift.

Maintains positive control, for example, a tool is removed from a drawer, that drawer is highlighted on the screen located on top of the box to indicate a tool is missing from that drawer. Technicians use individually issued proximity cards and a touch screen to check tools in/out which is tracked electronically in the tool box log.

Although these boxes are not tailored specifically to the T-6A Texan, there are procedures in place to update the boxes in order to add/remove tools as needed, particularly specialty tools, to make them more efficient for the people who use them.

Super Hornet Transition

"The Blue Angels received their first Super Hornet trainer in July 2020 and subsequently received 2 more aircraft to date. The Super Hornet Transition team is currently working out of Hangar 3260, (NASP) while the Legacy Team continues to perform maintenance, fly, and practice out of Hangar 1854 at Naval Air Station Pensacola due to COVID-19 travel restrictions.

CNATRA Detachment NASP is responsible for the coordination of both facilities and materials/GSE/IMRL needed for the Blue Angels and AIMD to support the new Super Hornet platform. Hangar 3260 required numerous man-hours to get back to up to speed.

Most notably, NAVFAC repaired paint chips that were creating a FOD hazard and also repaired numerous water leaks to improve aviation maintenance habitability.

The Blue Angels plan to receive all of their Super Hornets by October 2020 and start their flight training in

El Centro during the winter months. The Legacy Hornets will be retired after being in service since 1986.
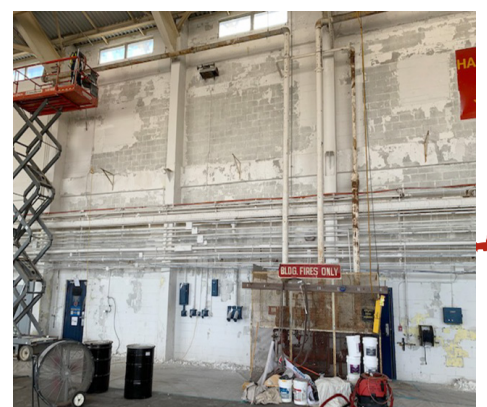
UNFOLDING CYBERTHREATS ON AEROSPACE AND MILITARY SECTORS

Cyberthreats against aerospace and military sectors are rising manifold as critical infrastructures increasingly get connected over the internet.

Advanced Persistent Threat groups working in association with a nation state target these sectors with the aim:

a) to steal intellectual property related to advanced aerospace and defense capabilities and produce technologies for sale on the dark market

b) to collect high-level intelligence data and subvert other nations' defense systems and capabilities.

McAfee reported a new wave of attacks from North Korea-based Hidden Cobra hackers. Dubbed 'Operation North Star', the campaign targeted the U.S. defense and aerospace sectors with fake job offers.

It began in late March and lasted through May 2020. ESET researchers discovered an Operation Interception attack against European aerospace and military companies. The attack was launched by creating fake LinkedIn accounts of HR representatives from Collins Aerospace and General Dynamics.

Maze ransomware attackers stole 1.5 TB of sensitive data after gaining unauthorized access to VT San Antonio Aerospace's network. The compromised data included project implementation plan details, timelines, schedules, type of parts/equipment, and financial records.

Denver-based Visser Precision Manufacturing, a supplier to a number of major defense companies such as Lockheed Martin, General Dynamics and SpaceX, was targeted by Doppel Paymer ransomware that exfiltrated the company's data before encrypting it.

In each instance, the cyber-criminals threatened to publish the stolen data in a bid to extract ransom from the firms.

NMCI NETWORK CONNECTIONS AND OOMA

The CNATRA maintenance departments are solely reliant on the NTCSS OOMA/OIMA application and database servers. The smallest of CNATRA N6 NMCI network systems that support the NALCOMIS maintenance effort relies on hundreds of workstations and connectivity over hundreds, even thousands of miles when consideration of the Blues moving to El Centro is taken into account. Now, we add in the COVID-19 response with the increase in teleworking adding strain to an already overwhelmed network. With all variables considered, NMCI does not do a horrible job keeping us connected and maintenance running in real-time. There are issues of course, one specific problem being the network between Kingsville and Corpus. This is a particular issue because the Kingsville OIMA and NALC/R-Supply servers are in Corpus not Kingsville and support Kingsville, Meridian and Pensacola T45s. There are some basic best-practice housekeeping methods that can greatly improve all of our maintenance sites.

1)   Log out of OOMA/OIMA every time you leave the workstation.

2)   Reboot every workstation at EVERY shift-change.

3)   Perform the Green Shut Down at least once per day. This will ensure the applications are correctly updated. The last person using the workstation for the day should do this.

4)   Do NOT stream video and music on your NMCI workstation. This kills the bandwidth for processing OOMA/OIMA data. Commonly, **ten percent of users use ninety percent of the bandwidth.**

5)   Be patient. Allow the processes to complete. By stacking commands (continuously clicking the mouse), you only slow the process down by making the application not understand what you are trying to do.

6)   If you know NMCI is down in any instance, we cannot make OOMA/OIMA work. There is no super-secret handshake to make the application bypass the NMCI connection.

7)   Screen-shots of errors are the best aid in correcting a fault. As detailed as someone may describe an error, many are generic in reference and may have multiple meanings in context.

Help Us Help You!

MICROSOFT HOME USE PROGRAM
OFFICE 365 NOW AVAILABLE

The Home Use Program (HUP) is an employee purchase program for CNATRA employees. It offers Office 365 Home and Personal—premium, up-to-date software—at a discounted rate. CNATRA and NATRACOM employees are eligible for the Office 365 HUP benefit with a valid work email address (xxxx.navy.mil).

There are two options available for purchase Office 365 Home for up to six (6) family users ($69.99/year) and Office 365 Personal for one (1) user ($48.99/year). Both subscriptions include Word, Excel, PowerPoint, Outlook, Publisher, Access, OneDrive Service and Skype Service.

Follow these steps to access your benefits:

DO NOT INSTALL ON YOUR WORK COMPUTER!

1.	Go to www.microsoft.com/home-use-program.

2.	Enter your WORK email address, click on the GET STARTED button.

3.	An email will be sent to your work email. The email sender will be from "Account No Reply maccount@ microsoft.com". The email subject line will read, "Check out this special discount, just for you."

4.	Click on the "Login to start saving" button. IMPORTANT: Do not forward this email to anyone else. The email sent to you contains a unique link for you.

5.	You will be prompted to sign in with your personal Microsoft account. If you do not have one, click "Create one" and follow the steps on the screen. Once you register, the Home Use Program benefit will be attached to the registered account. **NOTE: If you have more than one Microsoft account, make sure you remember which account you used for your Home Use Program. This will be the only account that will have access to these benefits.

6.	After you sign in, you will be able to see the Microsoft benefits available to you.

7.	Click on Buy Now and add the products to your cart.

8.	Open the Cart when all of your selections have been made.

9.	Select your payment method and click Place Order.

10.	You will receive an email associated with your personal Microsoft account. This email will provide you with the receipt and the links to install to your PERSONAL computer.

NMCI Windows Upgrade

The NMCI Windows 10 operating system on your workstations will be upgraded from version 1803 to version 1909. Users will have the ability to control when the upgrade takes place on their workstation.

PREPARATION
In preparation for the upgrade, a Seat Health Check application has been distributed to NMCI workstations and is located within the Start Menu and should also be displayed on the desktop. The Seat Health Check application performs two functions in support of the Windows 10 / 1909 update. It enables the user to check the readiness of the seat for the update, and also provide a means to launch the update.

This puts control of the schedule for updating in the hands of the user. Running the Seat Health Check application will not impact availability of the computer while it completes. The user is free to continue working while the application checks the status of the computer and whether it has received the packages necessary to update.

To check seat readiness for the update, the user opens the application by either selecting it in the start menu or double-clicking on the desktop icon. The user may be prompted to refresh data and should select yes to ensure they will have the most current status.

UPDATE
Once your workstation is ready to update and FLTCYBERCOM has opened the window to perform the update, the Seat Health application will be used to launch the update. Your CTR will inform your IT POC that the window for execution has opened – at that point, users may launch the update at any time by selecting the START UPDATE button within the Seat Health application.

Prior to selecting START UPDATE
It is recommended that users back up their data. Backups should be to locally-connected USB Hard Drives. After backing up user data, external drives should be disconnected prior to updating the workstation. It is recommended that users disconnect workstations

from Keyboard/Video/Mouse (KVM) switches as Microsoft has identified that these devices may interfere with update completion.

Once the START UPDATE button is selected, users will be prompted with a screen to confirm starting of the update, this also warns that the computer will be unavailable once the update starts. The computer will initially go into a setup phase for the update and the user will still be able to work on the computer during this phase. The user is prompted to choose between an immediate reboot after the setup phase or a delayed reboot.

After reboot the machine will not be accessible until the update completes.

Once the update completes, the user can check the status using the Seat Health Check application, which should show the Update Readiness as "Already at Release 1909". The user will no longer be able to access update readiness details.

If the update is attempted and fails, the machine will remain at Windows 10 version 1803 and the user will see a 'Previous Update Attempt Rolled back' notification. It will also provide an 'Error Description' providing the reason for the rollback. Users experiencing failure should contact the Helpdesk at 1-866-843-6627 (1-866-THE-NMCI) and provide the reason for rollback, unless the user has left an external drive or KVM connected during the attempted update. If that is the case, users should disconnect those devices and attempt to update again.

From the ACOS

HOT DAMN it's a GREAT time to be in CNATRA!

Skipper "WAD" Westphall, the Chief Training and Standardization Officer (N71) called me over to the PTO shop on August 19th to view the boxes of newly arrived iPad Mini's with state of the art leg straps for issue to instructors that will facilitate advanced use in carrying out our core mission of training aviators and getting them to the fleet. We are seeing tangible results of leadership's response and 'all in' support with the modernization of flight training! Furthermore, I've been on the net this week with OPNAV N98 (Admiral "Hyfi" Harris's shop) filling working requests to procure licenses for each aviator to have industry standard flight planning and monitoring software issued to aviators on flying orders (I can't say the name of the product, but it rhymes with FloorFight).

CAPT "FDR" Delano and his Avenger squad are in high gear preparing to introduce "Avenger" to the Primary program. This is a good news story with each HQ directorate and the PRIMARY Wings pulling together in making this concept a reality. As of this writing, commercial broadband has been installed in the training spaces and the equipment is arriving to support the training evolution though Competency-Based instruction (supported by 21st century tech).

Our partners at Naval Aviation Schools Command (NASC) in Pensacola, FL have STARTED Naval Introductory Flight Evaluation (NIFE)! This has been a long time coming and is replacing Introductory Flight Screening (IFS) and Aviation Preflight Indoctrination (API). After reviewing every word and number of the Master Curriculum Guide (MCG) and Flight Training Instruction (FTI), I can assure anyone that this program is a generational LEAP ahead in the initial training phase of our valued flight students. As NASC gets this program running, your N7 team (JR, Tanya, Debbie, Liz, and DeLux) is SPRINTING with them to ensure the high-quality training is delivered and screening functions confirm candidates arrive at PRIMARY understanding and meeting our high entry standards.

It's time for the annual Tailhook symposium, and the theme this year is "Naval Aviation Training!" This is a GREAT opportunity to spread the "gospel" of CNATRA and share with the enterprise all of the moving parts as well as our vision for the future ("Street-to-fleet in 18 months"). This year's symposium will be more accessible than ever since it will be conducted virtually (COVID strikes again). I am working closely with CAPTs "FDR" Delano and "Mongo" Janik as we prepare to brief the enterprise. Expect some great panels that include Air Boss "Bullet" Miller (in one of his final appearances as the current Air Boss), and Admiral "Hyfi" Harris who as noted above, has been busy doing great things for CNATRA and Naval Aviation at N98. Of course, RDML Westendorff will be on hand the publicly WING a pilot and NFO (What an honor for those two young officers!). "BZ" to CAPT "Popeye" Doyle, the Hook President (and ferry pilot for the first Blue Angle SUPER HORNET aircraft) keeping this year's event moving forward in a virtual format. "New territory" is always fun and adventurous – and so is Naval Aviation!

Speaking of tailhooks, our award-winning Force Landing Signals Officer, LCDR Ronnie ("RDSJ") Stahl is gearing up to wave another batch of SNA's from TWs 1 & 2 aboard our nation's newest nuclear-powered man-o-war. We look forward to putting a "Q" in these officer's training jackets next to "Carrier Qualified" in mid-September and getting them one step closer to the fleet, where they can join the team capable of projecting power world-wide on behalf of a grateful nation.

Notes on this month's N7 Communicator submissions:
•	Using his Fleet Master Chief experience (as a frequent final reviewer of the Plan of the Day) Dr. Sheppard has drafted some notes covering terms that we use frequently in our training publications that you may hear from time to time (but were afraid to ask about).

•	For our "Innovation Update," we're sharing some links to our 360 degree video library that "Shrek" and "Willie" have been toiling over for months (working LONG hours on the production). If you have not viewed one of these, I encourage you to have a look. I promise that about five seconds into on (after you have "looked around"), you will "get it" …and it will be exciting!

I continue to be humbled to serve with this team. /Bug out.

Flight Training Courseware and Media

The NATRACOM aviation training program is supported by configuration controlled hardcopy and electronic courseware including instructions, training publications, training forms, electronic courses, and examinations. All changes to courseware are handled via the TCR process. Media, the methods and devices used to convey learning objectives, include some courseware as well as items not under configuration control. Thus, all instruction is delivered via some type of media, but not all instructional content is considered courseware. The following sections describe important components of courseware and media:

Courseware Publications and Forms

CNATRA Instruction 1542 Curricula. MCGs serve as courseware in addition to other functions such as training management. MCGs are the Chief of Naval Operations' authorization to conduct courses of instruction. These instructions are required for all CNATRA curricula since they authorize manpower and materiel expenditures. The MCG outlines the required maneuvers to be conducted on each event. It provides instructors and students with a guide to brief and fly each event. Additionally, the MCG outlines the sequence of all events for each phase of instruction. Instructors and students shall have a working copy of the MCG, and a complete MCG shall be maintained in each applicable unit standardization library. Other CNATRA training publications pertinent to a particular curriculum are derivatives of their respective MCG.

E-briefs are computer-based briefing guides that are PTO-managed, N7-approved, and posted on the CNATRA website.

Aviation Training Forms (ATF) are used by instructors to grade each flight. They reflect Course Training Standards (CTS) found in the MCG.

Flight Training Instructions (FTI) are training publications which define maneuvers and acceptable performance standards for each maneuver the student is expected to perform. Each FTI covers one or more stages of instruction.

Particular to Aviation Training Publications (PAT PUBs) are instructional materials that provide fundamental learning objectives for academic instruction and provide the baseline knowledge to complete the curriculum. FTIs are a subset of PAT PUBS.

Instructor Guides (IG) are instructor outlines for blocks of academic classes and flight support lectures.

The following Media components are used in events conducted as classes. These names apply to both the actual training material/software (courseware) and the training lesson/method/device (media) used to convey the instructional information.

Interactive Courseware (ICW) involves instruction where the student interacts solely with a computer. Learning and testing are accomplished on a computer terminal. ICW is also known as Computer Aided Instruction (CAI).

Mediated Interactive Lecture (MIL) is computer-based training led by a qualified instructor in a classroom environment. The courseware is launched via TIMS and is under configuration control.

Part Task Trainer (PTT) is instruction using a device with a computer screen as the primary interface, which simulates specific equipment in the aircraft. PTTs are used to develop a student's knowledge, skill, and ability to use individual aircraft systems prior to more complex training in an integrated simulator or aircraft.

Other Media used for classes (not courseware and not under formal configuration control):

Offline MIL is computer-based training led by a qualified instructor in a classroom environment. It is maintained

in an electronic folder managed by the PTO, approved by N7, and called "OFFLINE MIL." The presentation is not considered courseware because it has not gone through the formal approval process. Thus, it has similar features as a Lecture, with some measure of control, although the instructional material may vary depending on the instructor. Furthermore, the intent is that the material is moving toward becoming a configuration-controlled MIL.

Lecture (LECT) is a class presented without the use of computer courseware or electronic instructional media of any kind. It can be general/administrative in nature, given by a lecturer appropriate to the topic, or academic/operational, given by a qualified instructor. It is often in a classroom environment, but may be located elsewhere.

Tour takes the student out of the classroom to squadron spaces or other flight facilities to see and learn about their operations, equipment, and environment.

Laboratory (LAB) is oriented toward doing instead of just watching or listening (i.e., a hands-on learning experience under the supervision of an instructor).

Pen-and-Paper (P/P) involves a student writing on paper, sometimes used for exams.

Self-Study (SS) is a scheduled learning period with no instructor.

Hardware media with supporting software (not courseware):

Simulator. Fully interactive training device, consisting of flight-like hardware (e.g., stick/throttle, radio control buttons) and flight-like software. A moving, visual representation of the outside view may be presented on an external dome if part of that training device, but it is not required to be considered a simulator.

Aircraft. A vehicle capable of flight.

Training Integration Management System (TIMS) [soon to be replaced by T-SHARP] is a comprehensive,

enterprise computer-based management application used by CNATRA. Proper administration and use of TIMS is an essential element in all aspects of managing training for NATRACOM students and Instructors Under Training (IUT). TIMS is used for scheduling, student tracking, qualifications, testing, completion of grade sheets, and flight documentation (NAVFLIRS). All levels of command shall use TIMS to the fullest extent possible for management of student and instructor training, as well as instructor proficiency. Standardization of TIMS operating procedures throughout NATRACOM produces quality aviators by providing training continuity and proper execution of CNATRA curricula.

Innovation Update

You can view some CNATRA 360 Videos of T-45 training at the URLs listed below:

TW1 T45
1. TW1 T-45C Section Marshal, Taxi, and Interval Takeoff into Area 4 - https://youtu.be/3VndlNd6U9Y
2. TW-1 T45 2 Plane Formation Crossunder and Lead Change - https://youtu.be/ihNPXxD9Dp4
3. TW1 T45C Breakup and CV Rendezvous - https://youtu.be/FcUs3Vh1Z_Y

TW4 T6B
1. NOLF Goliad to Shamrock - https://youtu.be/3vA6uWeQgJM
2. Kings4 to NOLF Goliad - https://youtu.be/KPqy42bpXwQ
3. Nueces Transition - https://youtu.be/UK3_IHsk8b4
4. Oso Transition - https://youtu.be/X7977B5TEEg
5. Mustang South to NOLF Waldron - https://youtu.be/UKwuYLh3FwE
6. Ground Operations (VFR and IFR Departures) - https://youtu.be/KLWp1I4sDWo

TW5 T6B
1. Chicken Ranch to Waldo - https://youtu.be/OzRVUn4OJG4
2. TW5 Helo/Tiltrotor - VR introduction - https://youtu.be/bgYnaCo_wv8
3. Whisky Arrival from Western OLF- https://youtu.be/aPlmytQ7-GY
4. CR to NOLF Spencer - https://youtu.be/9gXrQyI4Y_Q
5. Baker Departure to Western OLF - https://youtu.be/tEJVd1xpqxY
6. HT Start Checklist (TH-57B/Non-GTN) - https://youtu.be/HP6-QpvZcDE
7. HT Course Rules - NOLF Pace - https://youtu.be/OrSBRrEfG2g
8. HT Course Rules SNAKE and FOG Arrival - https://youtu.be/-xyqEXPFI1o

TW6 NFO Training
1. T-6A Preflight - https://www.youtube.com/watch?v=mvGwN7jtmLl
2. T-6A ILS Full Stop RWY 7 KNPA - https://www.youtube.com/watch?v=LSreXU8NtmQ
3. T-6A Course Rules RWY 7 KNPA - https://www.youtube.com/watch?v=3vS-PN0sEME
4. T-6A After Landing Checklist - https://www.youtube.com/watch?v=kuM27N7bEWg
5. Engine Start and Taxi Checklist - https://www.youtube.com/watch?v=7I_EHWNI6uQ
6. T-6A PEL - https://www.youtube.com/watch?v=sS8C077ZPFE

Human Competence: Engineering Human Performance

Thomas F. Gilbert (1927–1995) was a psychologist who is often known as the founder of the field of performance technology, also known as Human Performance Technology (HPT). Gilbert himself coined and used the term Performance Engineering. Gilbert applied his understanding of behavioral psychology to improve human performance at work and at school. He is best known for his book Human Competence: Engineering Worthy Performance. Gilbert devised HPT when he realized that formal

learning programs often only brought about a change in knowledge, not a change in behavior. Other techniques were needed to bring about a lasting change in behavior.

Gilbert spent a year on a post-doctoral sabbatical working with the behavioral psychologist B. F. Skinner at Harvard University and with Ogden R. Lindsley in Lindsley's laboratory at Metropolitan State Hospital in Waltham, Massachusetts. Gilbert received his BA and MA degrees at the University of South Carolina and his PhD in psychology from the University of Tennessee. His specialties were statistics, testing and measurement.

Gilbert applied this model to the world of work and school by observing that performance is a function of an interaction between a person's behavior and his or her environment (P = B × E) and then defining the elements of the ABC model within each of these two domains. He called the resulting model the Performance Engineering Model, and used it to identify opportunities to systematically develop the managerially controllable systems and other factors in the work and school environments which support employee/student performance. These improvements sometimes resulted in dramatic increases in performance.

Gilbert developed the behavior and environment registers of the model outlined above with the basic framework of the Skinnerian operant behavioral model. This framework = Discriminative Stimulus --> Response --> Reinforcing or Aversive Stimulus (= SD --> R --> S+/-).

This paradigm can be summarized as the ABC model: Antecedents lead to Behaviors which, in turn, lead to Consequences. The nature of these consequences affect the probability of future expressions of this behavior. In other words, behaviors are prompted by stimuli (antecedents) which then result in responses (the behaviors themselves) which are, in turn, followed by consequences. Consequences either increase (reinforcement) or decrease (punishment) the probability of future repetition of this behavior.

Conjointly using these two models in a 2x3 matrix (P = B × E to create a top and bottom row, and the ABC model to create three columns across each of the two rows), Gilbert identified six variables which he believed were necessary to improve human performance: information, resources, incentives, knowledge, capacity, and motives. Gilbert called this 2x3 matrix his Behavior Engineering Model (BEM). Gilbert believed that it was absence of performance support at work, not an individual's lack of knowledge or skill, that was the greatest barrier to exemplary performance. Therefore, he believed it was most necessary to focus on variables in the work environment before addressing variables at the individual level.

Reference: Wikipedia contributors. (2019, July 30). Thomas Gilbert (engineer). In Wikipedia, The Free Encyclopedia. Retrieved 12:59, August 12, 2020, from https://en.wikipedia.org/w/index.php?title=Thomas_Gilbert_(engineer)&oldid=908609200

HUMAN PERFORMANCE TECHNOLOGY (HPT) MODEL
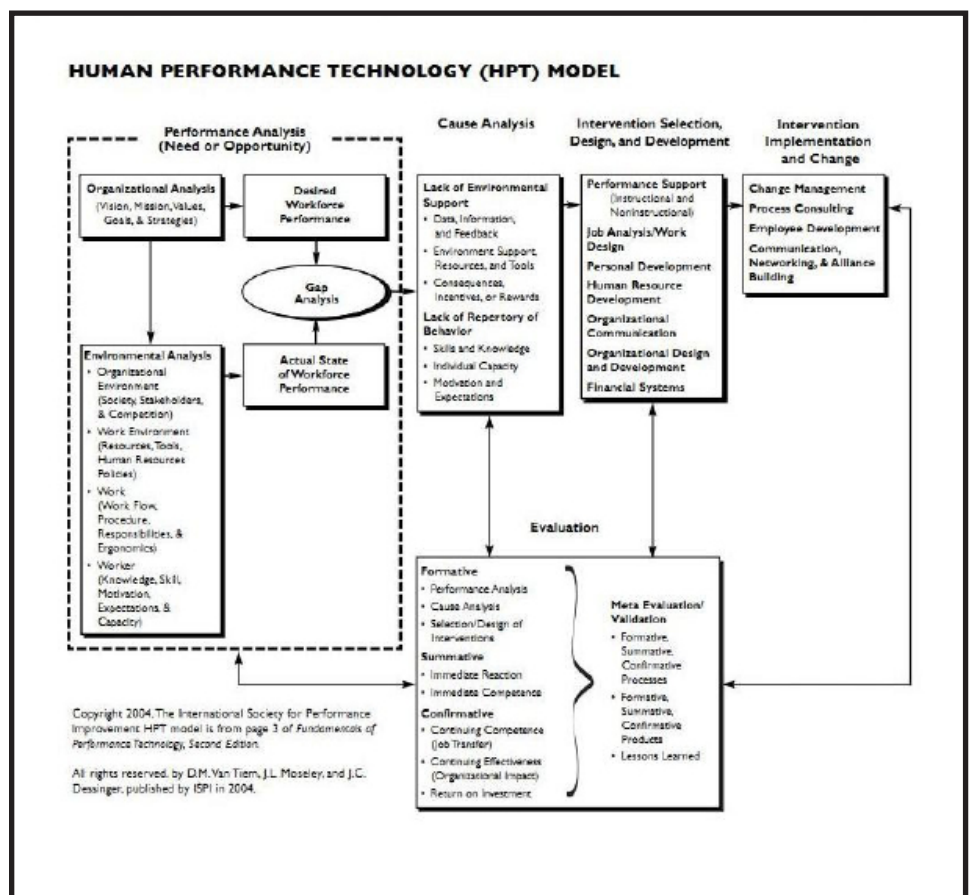
"If we learn nothing else from
this tragedy, we learn that
life is short and
there is no time for hate."

-Sandy Dahl,
wife of flight 93 pilot, jason dahl