

Report to Congress

**THE HOUSE REPORT 111-491, TO ACCOMPANY HR 5136,
THE NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2011**

**STUDY AND REPORT ON FEASIBILITY OF TRANSFERRING
AIRCRAFT FROM A MILITARY DEPARTMENT TO A
NON-FEDERAL ENTITY FOR THE PURPOSE OF RESTORING AND
FLYING THE AIRCRAFT**

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Non-Federal Entity for the Purpose of Restoring and Flying the Aircraft
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1 – OVERVIEW

In accordance with the language in House Report 111-491, accompanying H.R. 5136, the National Defense Authorization Act (NDAA) for Fiscal Year 2011, the Secretary of Defense has been requested to study the feasibility and advisability of developing criteria for transferring aircraft from a military service to non-federal entities (NFEs) for the purposes of restoring and flying the aircraft. Thirteen minimum criteria to be considered in the study were identified,

including public safety, prevention of the release of sensitive information or technology, cost, demilitarization requirements, existing federal statutes prohibiting proposed transfers, liability, availability of aircraft and parts, Department of Defense (DoD) long-term preservation goals, public access to aircraft, criteria for evaluating request for transfer, ability of NFEs to comply with DoD standards, reversionary rights to the aircraft, and any other information deemed relevant.

The House Report further requests the Office of the Secretary of Defense (OSD), with participation of other agencies, General Services Administration (GSA), Federal Aviation Administration (FAA), and the Department of Homeland Security (DHS), report the findings of the study along with any recommendations to the Senate Committee on Armed Services and the House Committee on Armed Services by April 15, 2011.

The Department welcomes this opportunity to describe the current processes for preserving military aviation history by transferring, loaning or donating surplus/stricken aircraft for static display to qualified civilian museums, veteran organization, cities, municipalities and foreign museums. The Department also welcomes the opportunity to explain the challenges and issues involving the transfer, loan or donation of aircraft to NFEs for the purpose of restoring and flying military aircraft.

2 – BACKGROUND

Before addressing the Committee's criteria for the study, a summary of today's environment may be helpful. In accordance with current statutes and regulations, the Department does not generally transfer flyable military aircraft to NFEs. For example, the Services regularly support the loan or transfer of historical aircraft to museums, municipalities, and military heritage foundations under the authority of 10 U.S.C. § 2572 and § 7545. Display aircraft are not transferred for purposes of flight and are not intended to meet airworthiness standards. It is important to note that it is not the practice of the Services to pass title to these static display aircraft to the recipient. They are conveyed by means of a Conditional Loan Agreement which provides for maximum government oversight. The Conditional Loan Agreement also serves to limit government liability, preserve the artifact according to acceptable standards, and ensure the greatest possible benefit for the public. Further transfer of the aircraft without the permission of the Military Service is not permitted.

Section 2572 requires that the item provided to an authorized recipient will be demilitarized in the interest of public safety, as determined by the Secretary or his designee (10 U.S.C. § 2572 (d)(1)). Navy and Air Force regulations require compliance with the DoD 4160.21-M (Defense Materiel Disposition Manual), which mandates demilitarization prior to transfer (DoD 4160.21-M, Ch 6, at p. 6-15). In addition, the Defense Demilitarization Manual requires demilitarization to render the items unserviceable in the interest of public safety, while seeking to preserve the historic and display value of the item (DoD 4160.21-M-1 Defense Demilitarization Manual, Chapter IV). Consistent with Services and DoD guidance, the Federal Management Regulations do not allow donation of aircraft to NFEs for flight purposes (41 CFR § 102-37.460(f)).

The procedures for processing excess and surplus stricken aircraft are outlined in the DoD 4160.21-M, Chapter 4, p.4-3. Category A aircraft (commercial or dual use aircraft), having commercial equivalents or are otherwise not built or modified for the purpose of delivering munitions, are first screened within DoD to determine if another Military Service has a need for the aircraft or aircraft parts. Aircraft not taken by DoD are then reported to GSA for potential transfer to other Federal Government agencies in accordance with federal property management regulations. Screening also occurs for federal or state law enforcement purposes, security assistance needs and donation of surplus to authorized recipients through GSA (DoD 4160.21-M, Ch 4, pp. 4-3 and 4-4). These agencies receive various requests for excess aircraft from federal entities and NFEs, which are evaluated and prioritized. The bottom line is that many former Category 'A' military aircraft (that is, those which have commercial equivalents and are not specifically equipped or modified for military operations) are donated for use in law enforcement, humanitarian assistance, firefighting, and many other purposes that serve the public good. Category B aircraft are aircraft that have been previously used for ground instruction and/or static display.

In contrast, Category C aircraft do not have commercial flight applications due to their military design characteristics, such as combat/tactical application. As noted in the Defense Materiel Disposition Manual, Category C aircraft are for ground use (e.g., static displays) except in very rare instances (DoD 4160.21-M, Defense Materiel Disposition Manual, Ch 4, p. 4-7).

As a very rare exception, the Services have transferred flyable military aircraft to NFEs when such a transfer is specifically directed by special legislation. In these rare instances, the legislation has addressed the terms of the transfer, assumption of cost by the transferee and the recognition that the transferee assumes all liability upon execution of the transfer. A significant issue with these transfers is the initial spare part support. DoD provides no continuing spare part support for stricken aircraft.

It is quite common for the Services to receive requests for surplus/stricken military aircraft from private individuals and organizations, which are not permitted to receive aircraft under the authority of current statutes. These requests are routinely denied as outside the scope of the Services current authority and contradictory to demilitarization procedures and existing regulations that govern the transfer of government property.

The FAA issues special airworthiness certificates in the experimental category to permit the operation of aircraft for which there is no type certificate, or for aircraft which do not conform to the relevant type certificate, but which are in safe operating condition. Special airworthiness certificates may be issued for a number of purposes, including, exhibitions which exhibit an aircraft's flight capabilities, performance or unusual characteristics for air shows, motion pictures, television, etc. Former military aircraft that are transferred to NFEs (including private individuals or organizations) fall into this broad category. The FAA also assigns operation limitations to experimental aircraft in the interest of safety as permitted by 14 CFR Section 91.319(i), which states that the FAA may prescribe additional limitations, including limitations on the persons that may be carried in the aircraft. Such limitations provide the level of safety necessary to protect the non-participating public, but they do not offer a level of safety equivalent to that of a Type Certificated aircraft.

The FAA has historically found an overwhelming public interest in preserving U.S. aviation history, including former military aircraft transferred to private individuals or organizations for the purpose of restoring and flying these aircraft. While aviation history can be represented in static displays in museums in much the same way that other historic landmarks are represented, the public continues to show interest in flights by these historic aircraft. The FAA has further determined that, with appropriate conditions and limitations imposed for public safety, access to these aircraft can include allowing the public to experience flight.

The considerable expense involved in maintaining and operating these aircraft led private civilian owners to petition the FAA to allow passenger-carrying flights for compensation as a way to generate the required funds. Because the regulations (14 CFR) do not otherwise allow such operations, the FAA established through its mid-1990s Living History Flight Experience (LHFE) policy that exemptions are an appropriate way to preserve aviation history and keep historic airplanes operational when comparable airplanes manufactured under a standard airworthiness certificate do not exist. The LHFE policy provided a way for the private owner/operator of historically significant American-made aircraft to conduct limited passenger carrying flights for compensation as a way to generate funds needed to maintain and preserve historically significant radial-engine aircraft for future generations.

Because this policy generated a number of petitions for an exemption in a 2004 Federal Register notice (FAA-2004-17648), the FAA issued a Notice of Policy Statement on Exemptions (from 14 CFR parts 91, 119, 121, and 135) for Experimental and Limited Category Aircraft Operations for the Carriage of Passengers on Nostalgia Flights for Compensation. This policy statement affirmed the FAA's belief that because the regulatory scheme adopted in 14 CFR establishes appropriate safety standards for aircraft operators and crewmembers, those requesting an exemption from a particular standard or set of standards must demonstrate that: (1) the flight cannot be performed in full compliance with regulations; (2) there is an overriding public interest in conducting passenger flights on the aircraft; and (3) the measures to be taken establish an appropriate level of safety for the flight.

The 2004 policy statement explicitly limited the scope of its nostalgia flight exemption to WWII or earlier vintage airplanes (i.e., manufactured before 31 December 1947). The reasons enumerated in the statement address both public interests (e.g., the unique opportunity to experience flight in a B-17 or B-24 while such aircraft can still be safely maintained) and public safety (e.g., older and slower multiengine airplanes allow time for appropriate corrective measures in the event of an in-flight emergency and crews must meet FAA qualification and training requirements). Of particular note is the statement that the FAA "does not believe it prudent to grant exemptions from the FAA regulations to operators of supersonic jets because the speed of supersonic jets makes it likely that any in-flight emergency may result in serious injuries or fatalities."

3 – SUMMARY

Based on past experience in this area, and on the considerations outlined below, DoD advises against statutory and regulatory changes that would relax restrictions against the transfer of flyable aircraft, whether vintage or modern, beyond the limits as they exist today. DoD particularly supports restrictions against transferring combat or military aircraft (see, e.g., 41 CFR §102-37.460(f)). This is a reasonable and necessary prohibition and there is no compelling reason for change. There are particular concerns with transfers to private individuals and organizations because such transfers would impose significant financial and administrative burdens to the United States Government, present unacceptable safety risk to operators and the public, erode the authority of the Services, and potentially do harm to heritage assets. Threats to national security are also overriding concerns.

The substantial risks of transferring Category C aircraft to NFEs far outweigh any potential benefit to the interests of the United States Government. While various processes might be devised to screen requestors and match them with available aircraft (from outside the national historic collection), the expense to the Federal government involved both initially and as an on-going matter, as well as the potential likelihood of claims of liability against the Government, dictate against the feasibility of such a program.

Currently, the Military Services have policies that implement existing requirements to restrict the types of aircraft that can be made available to private parties and limit their use to non-flight purposes. These long standing policies have been applied consistently over many years, effectively functioning to safeguard the public and strengthen the preservation of historic assets in trust for the future. Changes to allow transfers of flyable aircraft present significant public policy concerns.

Additionally, legislative action to broaden the scope and frequency of transfers of flyable aircraft is of great concern as it would potentially have a major effect on the Services handling of aircraft, necessitate policy overhaul and result in major disruptions to program accomplishment. Again, DoD sees significant national security, public safety, liability, cost and resource implications in the event that flyable combat military aircraft are authorized to be transferred to NFEs. Even having to determine if an aircraft is flyable or could be restored to flyable condition would place an extreme burden on the Services. Moreover, the Services currently are not responsible for providing any spare parts for aircraft transferred or loaned under the stricken aircraft program. Once stricken or declared surplus, aircraft are not maintained and there is no continuing assessment made of potential maintenance issues with those aircraft. Transferring flyable aircraft would present significant and expensive additional responsibilities on the Military Services' budget without commensurate benefit to Services' mission.

As previously mentioned, the number of petitions received for exemptions from the FAA's original LHFE policy led the FAA to issue further guidance in 2006 on Exemptions for Passenger-Carrying Operations Conducted for Compensation and Hire in Other Than Standard Category Aircraft (FAA-2006-24260). The FAA noted that the clear commercial market orientation of these requests undermines arguments of a public interest goal in preserving unique historical aircraft, which was the basis for the 2004 policy.

Nevertheless, the 2006 policy included an agreement to consider any request for exemption for passenger-carrying flights in non-standard category aircraft, especially former military turbine-engine-powered aircraft on a case-by-case basis. Criteria for evaluation state that for petitioners intending to operate experimental exhibition, former foreign or domestic, turbojet or turbine-powered aircraft, the FAA will closely examine the proposed operations with respect to safety of flight, passenger safety considerations, and safety of the non-participating public during the operational period and with the operational area. Other criteria include passenger/crew egress, emergency egress systems such as ejection seats, documentation of statistical make and model operational history, historical significance of the particular aircraft, maintenance history, operational failure modes and aging aircraft factors. The 2006 policy also observed that some of the aircraft in question are complex in nature, requiring special skills to operate safely, and that military equipment such as ejection seat systems can pose additional risk to aircraft occupants, ground personnel and non-participating bystanders on the ground.

Finally, the 2006 policy cautioned that those requesting an exemption from a particular standard or set of standards must demonstrate that (1) there is an overriding public interest in providing a financial means for a non-profit organization to continue to preserve and operate these historic aircraft, and (2) adequate measures (including all conditions and limitations stipulated in the exemption) will be taken to ensure safety. The FAA further stated that “operations authorized under these exemptions are specifically not for air tour, sightseeing, or air carrier operations” and that the agency “in determining the public interest derived in any grant of exemption of this nature, will take into consideration the number of existing operational aircraft and petitioners available to provide the historic service to the public.”

The FAA’s policy concerns about the transfer of former military aircraft arise from the clear pattern established over the past decade: Availability of these aircraft enables acquisition by private individuals and organizations. Private ownership often leads to exemption petitions that, in many cases, ask the FAA to go beyond the scope of its policy. Under the significant political pressure that some petitioners generate, the limits established in the policy erode, eventually leading to the need for yet another policy revision. A case in point is the FAA’s acquiescence to requests to allow operation of more modern day military jet aircraft (e.g., the McDonnell Douglas F-4 Phantom and the McDonnell-Douglas A-4 Skyhawk) under the LHFE policy as revised in 2006. Some of these petitioners are now creating business models that, if authorized by the FAA, would offer civilians an opportunity to conduct simulated aerial combat flights with hands-on flight experience in these aircraft. They argue that the economics of preserving the aircraft for public access and historical purposes require the income such flights would generate. The financial challenges faced by NFEs should not be basis for allowing activities which are significantly more hazardous to passenger, the public to occur.

The FAA did not contemplate or intend operations of this nature when it originally developed the LHFE policy. Moreover, expected budget cuts constrain the FAA’s ability to properly oversee existing operations, not to mention expanded activities of this nature. Accordingly, when issuing the most recent LHFE exemption in 2010, the FAA clarified that its intent was to prohibit aerobatic flight, manipulation of the flight controls by passengers, and simulated strafing. The FAA plans to explicitly add these provisions to all existing LHFE

exemptions as they come up for renewal, and is considering a moratorium on all new LHFE exemption petitions pending an in-depth review of the entire LHFE policy. That said, there remains a concern that political pressure generated by petitioners relying on the “financial means” precedent set in 2006 could drive decisions in a different direction. Should such arguments prevail, the FAA notes that there would be public safety implications not only for the FAA, but also for DoD, GSA and DHS, particularly if non-vetted individuals were permitted to manipulate the controls of such aircraft.

4 – PUBLIC SAFETY

The safe operation of military aircraft is a complex engineering and logistical endeavor, and the challenges of safe operation are only compounded in various ways by the passage of time. Military squadrons, including military demonstration teams, operate within an environment of aggressive maintenance and continuous supervision. Maintenance is performed to rigorous standards by highly trained crews answerable to a clear chain of command and overseen by a cadre of engineering and supply chain professionals (see, e.g., Commander, Naval Air Forces Instruction, 4790.2A, Naval Aviation Maintenance Program). Even with such an aggressive program, mishaps within the Military Services do occur. The expertise, training and resources that would allow for an equivalent environment of safety may well be impossible in the private sector or prove to be prohibitively expensive for a NFE. In light of the considerable costs of overhaul and routine maintenance for military and/or historic aircraft in private hands, the result could be unacceptable compromises in safety-related inspections, maintenance and repairs.

In addition to maintenance of the aircraft, public safety issues are implicated by standards for pilots of these types of aircraft. As with maintenance and repair standards, military pilots are subject to rigorous training, operational and readiness requirements to ensure safest possible flight scenarios. The Naval Air Training Operating Procedures Standardization General Flight and Operating Instructions, Chief of Naval Operations, or OPNAV, Instruction, 3710.7U, is a great example of the detailed and complex nature of maintaining and flying combat aircraft. Because military aircraft, including historic aircraft, present challenges above and beyond those involved with flying commercial aircraft, the Department strongly questions the possibility of NFE pilots being adequately trained or experienced in a particular type of aircraft to the extent necessary for safe flight.

The ability of any private organization to maintain and safely fly a vintage Category C aircraft in accordance with modern standards is questionable at best. Experience shows that these aircraft will become increasingly more difficult and expensive to maintain as the years pass. The maintenance of these aircraft is compounded with limited availability of spare parts, repair manuals, technical data, ground support equipment, special test equipment, tooling, and test benches. There is no assurance that such resources are available to be transferred with historic aircraft or that the Services would recoup the substantial manpower cost of locating, collecting and transferring such items – not to mention their initial cost to the taxpayers. In fact, it is unlikely that such resources are available, and extensive engineering analysis of a specific aircraft would be needed in order to determine the availability and suitability of these resources. Specifically with respect to spare parts, the Military Services have entire organizations dedicated

to supply support for active inventory aircraft to ensure proper configuration control, safety of flight, and proper repair of parts. It is resource-intensive to maintain this supply support, and it is not continued once an aircraft leaves the active rolls. Given that DoD cannot guarantee such support, private organizations cannot reasonably be expected to have the resources of the DoD or equivalent access to a dwindling supply of parts.

As age and wear related issues develop, the Services distribute Time Compliance Technical Orders (TCTO), or similar processes, to provide improved maintenance procedures, direct replacement of affected parts or limit operational envelopes in an effort to prevent equipment failure. This type of system program office (SPO) support, if required by legislative language, would require large expenditures by the Services to provide support to unique, one-of-a-kind aircraft and necessitate the type of post-transfer involvement that would be fertile grounds for liability claims, as discussed above.

Monitoring such aircraft for airworthiness would require long-term dedication of DoD resources and coordination with the FAA, DHS, and GSA. The FAA certification of discontinued aircraft operations may be difficult to obtain since there is no expertise to provide analysis and advice with regards to the airframe and its airworthiness.

There are several examples illustrative of the risks involved with combat type aircraft in private hands. On July 8, 2010, an A-4 “Skyhawk” jet crashed in the vicinity of NAS Fallon, NV. The aircraft was piloted by a civilian employee (who fortunately ejected safely) of a company that had acquired the jet through a series of sales after it left Navy control via a Foreign Military Sale several decades ago. This is not the first time a commercial contractor flying an A-4 had a mishap. A more disturbing incident occurred on May 10, 2003. Again, a former Navy A-4 was being flown by a private contractor when it experienced an in-flight mishap. The pilot ejected but did not survive when his parachute failed to deploy.

One entity has requested an F-105 “Thunderchief” fighter-bomber. Because of its flight characteristics, the F-105 in its day was difficult to fly, even for the most experienced and well-trained pilots. The F-105 had a poor safety record during its active service with the US Air Force, one that will not be improved even with a perfect restoration. Consider, for example, the experience of the USAF Aerial Demonstration Team, The Thunderbirds, in 1964. The team used the F-105B aircraft for only six performances (April 26 – May 9) in 1964. The investigation of a fatal mishap during one of these shows led the team to revert to the F-100F for the remainder of the season.

There are also concerns that the consequences could be exponentially compounded by a mishap over an inhabited area. It is also worth noting that NFEs are likely to seek to use historic military markings on aircraft that are transferred. Therefore, the greatest possibility for actions contrary to the public safety would be if an individual with malignant intent was able to get access to a functioning military jet, possibly still with Service markings, which had been transferred to a NFE but was used in furtherance of criminal or terrorist activities. Once an aircraft is in the stream of commerce, it would be extraordinarily difficult to control its ultimate disposition. In addition, while the greatest concern is the potential for loss of life and injuries, such mishaps would also represent an irreplaceable loss of a historical artifact.

In the Department's experience, requests for flyable combat-coded aircraft are often from organizations that want to fly at air shows that charge admission or that want two-seat models in order to allow them to sell backseat rides. These proposed uses underscore the significant public safety considerations underlying any decision to transfer these types of aircraft.

5 – PREVENTING RELEASE OF SENSITIVE OR PROPRIETARY INFORMATION

Aircraft which are specifically designed, modified, or equipped for military purposes, and technical data directly related to such aircraft, are on the U.S. Munitions List (USML) and subject to U.S. export control pursuant to Section 38 of the Arms Export Control Act (22 U.S.C. 2778) and the International Traffic in Arms Regulations (ITAR). Category VIII – Military Training Equipment and Training is excerpted below. Pursuant to ITAR 121.3, Category VIII aircraft may still be subject to export control even if “demilitarized.” The Department of State Directorate of Defense Trade Controls regulates the export of items on the USML. Proposed transfer of aircraft from a military service to NFE means that in aircraft which in some cases are still subject to export control will be privately owned.

To the extent that transfer of an aircraft would compromise classified information or technology, such a transfer would not be permissible. Moreover, once transferred into private hands, it may be extremely difficult to prevent future transfers of the aircraft into other hands, which could include foreign nationals. A transfer to a foreign national or foreign entity would be potentially contrary to various arms and export control restrictions. One reason demilitarization is deemed critical in the disposition process is that it prevents military capabilities from residing with private parties or hostile countries. Even historic aircraft may have powerful combat and military capabilities. Thus, an aircraft itself may be considered a weapon system due to its inherent characteristics.

Of special note is the Grumman F-14 Tomcat. It is a supersonic, twin-engine, two-seat, variable-sweep wing fighter aircraft. The F-14 first flew in December 1970 and served as the Navy's primary maritime air superiority fighter, fleet defense interceptor and tactical reconnaissance platform. The F-14 was retired from the active Navy fleet on September 22, 2006. Currently, the F-14 is only in service with the Islamic Republic of Iran Air Force, having been exported to Iran in 1976 when the US had amicable diplomatic relations with the nation. Despite the fact that this aircraft has been stricken from active flight, there are still adversaries of the U.S. Government that are actively perusing parts, equipment and technical data to maintain their operational readiness. To a lesser degree, the same can be said of almost any military aircraft. Although a military aircraft (particularly a fighter aircraft), may be obsolete by our standards, an adversary, either through acquiring or reverse engineering, can develop it into a capable weapon.

The following is identified as “significant military equipment (SME)” in Category VIII of the U.S. Munitions List [22 CFR 121] of the International Traffic In Arms Regulations [22 CFR 120-130] and considered “sensitive”:

a. SME - Aircraft bearing an original military designation specifically designed, modified, or equipped for military purposes, including demilitarized aircraft, such as:

- (1) Gunnery
- (2) Bombing
- (3) Rocket or Missile Launching
- (4) Electronic or Other Surveillance EXCEPT all observation aircraft bearing "O" designations and using reciprocating engines.
- (5) Reconnaissance
- (6) Refueling
- (7) Aerial Mapping
- (8) Military Liaison EXCEPT all liaison aircraft bearing an "L" designation.
- (9) Cargo Carrying or Dropping EXCEPT cargo aircraft using reciprocating engines only and bearing "C" designations numbered C-45 through C-118 inclusive, C-121 through C-125 inclusive, and C-131.
- (10) Personnel Dropping EXCEPT utility aircraft bearing "U" designations and using reciprocating engines only.
- (11) Airborne Warning and Control
- (12) Military Training Aircraft EXCEPT aircraft bearing "T" designations and using reciprocating engines or turboprop engines with less than 600 shaft horsepower (s.h.p.).

b. SME - Military Aircraft Engines specifically designed or modified for the above aircraft EXCEPT reciprocating engines. Includes:

- (1) Engine afterburners
- (2) Thrust vectoring nozzles
- (3) Engine turbine wheel and shaft assembly of military unique
turbojet, turboprop and turbofan engines
- (4) Ignition systems for ramjet, pulsejet and scramjet engines

- (5) Fuel system including the variable area nozzles or fuel spray systems, as applicable, for ramjet, pulsejet and scramjet engines
- (6) Engine mounting fittings of ramjet, pulsejet and scramjet engines
- (7) Thrust chamber
- (8) Turbine pump
- (9) Engine mounting fittings of rocket engines
- c. SME - Cartridge-Actuated Devices (CADs) specifically designed or modified for use with the above aircraft and engines utilized in emergency escape of personnel.
- d. Non-SME - Launching and Recovery Equipment for above aircraft (does not include fixed land-based arresting gear).
- e. SME - Inertial Navigation Systems, Inertial Measurement Units (IMUs) and Attitude and Heading Reference Systems (AHRS) specifically designed, modified, or configured for military use and all specifically designed components, parts and accessories.
- f. Non-SME - Developmental aircraft, engines and components specifically designed, modified, or equipped for military uses or purposes, or developed with DoD funding.
- g. SME - Ground Effect Machines specifically designed or modified for military use.
- h. SME - Components and parts:
 - (1) RAM-Radar Absorbing Material
 - (2) Fuselage/airframe and empennage (tail assembly)
 - (3) Wing spar
 - (4) Missile ablative shell
 - (5) Impact detectors and circuitry
 - (6) Missile guidance systems
 - (7) Target selection programming data
 - (8) Balanced material orifices
 - (9) Gas generator (when used)

- (10) Pylons for external stores (armament, fuel, etc.)
 - (11) Gun barrels
 - (12) Launcher barrels
 - (13) Tubes or pods
 - (14) Receivers
 - (15) Firing mechanisms
 - (16) Gun rotor assemblies
 - (17) Delinking and declutching ammunition feeders
 - (18) Aircraft mounted cannon electric drive assemblies and mounts
 - (19) Internal Aircraft ammunition storage assemblies
 - (20) Ammunition crossover assemblies
 - (21) Magazines and chute assemblies
 - (22) Controllers
 - (23) Intervalometers
 - (24) Gunner control panels
 - (25) Pilot wing control panels
 - (26) Reflex sight
 - (27) Technical data
 - (28) Associated armament, equipment and subsystems
- i. Non-SME - Components, parts, accessories, attachments, and associated equipment specifically designed or modified for (a) through (d) above (excludes aircraft tires, propellers used with reciprocating engines, standard equipment or covered by a civil aircraft type certificate and is an integral part of such civil aircraft).
 - j. SME - Airborne refueling equipment specifically designed for use with military aircraft and spacecraft.

6 – COST/COST SAVING

Legislative or other changes that would authorize transfer of flyable combat-coded aircraft would likely result in significant costs to the Services and the diversion of increasingly scarce resources from core Service mission functions. There would be costs associated with identifying aircraft that are flyable or capable of being restored to flying condition. With historic aircraft and combat military aircraft, an extensive analysis could be required to make such a determination. It is unclear that such a determination can be made without undertaking actual repairs to an aircraft. Even if a NFE were to undertake the evaluation of flightworthiness, this would impose another set of considerations. A NFE flightworthiness evaluation would require access to secure government facilities, with all the attendant considerations related to maintaining security and disruption of essential DoD work by allowing such access.

As previously noted, the availability of repair manuals, technical data, test equipment and spare parts, would require a separate, extensive evaluation. For example, spare parts for inactive aircraft are not necessarily tracked on a part-by-part basis, since parts not required for supply system reutilization are often left installed on stricken aircraft. Removal of parts from an aircraft is an expensive and labor intensive process. Note that additional rules apply to Flight Safety Critical Aircraft Parts (FSCAP). FSCAP have a critical characteristic, where the failure, malfunction or absence of that characteristic could result in a catastrophic failure (DoD 4160.21-M, Ch. 4, Att. 3). The Military Services must provide all available historical records or documentation when such parts are turned in for disposition. Normally, without such documentation, the parts would be mutilated (DoD 4160.21-M, Ch. 4, p. 4-23). In addition, FSCAP cannot be used without FAA approval and DoD cannot make any representation as to the part's conformance to FAA requirements. Locating, tracking and documenting spare parts for inactive aircraft would impose significant budgetary and manpower burdens on the Services with very limited return.

Logbooks are also critical to meeting the requirements for safe flight, but the Services do not have the resources to assure that logbooks are accurate as of the time of transfer to a NFE. Moreover, the older the documentation, the greater the challenges will be in verifying the currency, viability and reliability of the information provided.

Implementing guidance now in force mandates that all costs involved in handling, transporting and preparing an aircraft for static display be borne by the receiving activity. Even with the reimbursement of costs, the Services would not recoup the loss of manpower and time that would otherwise be devoted to the assigned functions of the stricken aircraft program, including reclamation of parts for current requirements and disposition of stricken aircraft. Similarly, in the museum exchange program (10 U.S.C. § 2572), the government is prohibited from making any exchange in which the aggregate value of goods or services received by the Services is less than the value of the government-owned equipment to be transferred (although an exception can be made if an asset significantly enhances the Services historical collection). Thus, even if flyable combat-coded aircraft could be transferred, evaluation of transfers would require DoD to attempt to make valuation determinations regarding these aircraft and questions would persist whether DoD and the taxpayers truly are adequately reimbursed and just exactly

what value is obtained from the NFE in return for a flyable asset. This is a particular concern since, historically, there has been no charge to the recipient for the actual asset/airframe received.”

Contrary to the general requirement that transfers of aircraft to NFEs be completed at no cost to the Government, considerable unreimbursed cost was incurred on several occasions where flyable aircraft were transferred to private individuals or organizations as the result of special legislation. It has been DoD’s experience that such transfers, if the interests of the Government and general public are to be adequately addressed, impose an extreme manpower burden, with completion time easily stretching to over many months to a year. The tailored demilitarization that is required in conjunction with conveyances of this type must be addressed on a weapon system by weapon system basis. There are numerous technical issues to be resolved by the engineering community. Compliance with the DoD Demilitarization Manual (DoD 4160.21-M-1) and the Federal Property Management Regulations (e.g., 41 CFR § 101-45.001) requires more than just the removal of weapons delivery systems. Alterations in communications and avionics systems and in some cases, of the airframe (such as removal of gun sights) are frequently required. For example, in one legislatively-mandated transfer, significant disagreement arose regarding such issues. The transfer took over two years to complete with heavy demands put upon Navy technical experts (including active duty personnel), logisticians, and counsel.

7 – DEMILITARIZATION REQUIREMENTS

Requirements for demilitarization under 10 U.S.C. Paragraph (d) of Section 2572 provide: “A loan or gift made under this section shall be subject to regulations prescribed by the Secretary concerned and to regulations under Section 121 of title 40. The Secretary concerned shall ensure that an item authorized to be donated under this section is demilitarized in the interest of public safety, as determined by the Secretary or the Secretary’s designee.” This demilitarization requirement is a key component in ensuring public safety for transfers made pursuant to this authority.

8 – EXISTING STATUTES AND POLICIES PROHIBITING OR RESTRICTING TRANSFERS

Current statutes, GSA policy, DoD policy, Air Force and Navy instructions/policies prohibit the loan/donation of aircraft that are part of the national historic collection to civilian individuals and entities for operational use.

- Title 41 Code of Federal Regulations (CFR) 102-37.460(f), *The Federal Management Regulation (FMR)*, codifies the *Federal Property and Administrative Services Act of 1949*, as amended, and reads: “Military aircraft previously used for static display (Category B aircraft, as designated by the Department of Defense) or that are combat configured (Category C aircraft) may not be donated for flight purposes.”
- Title 10 United States Code (USC) 2572 (d)(1) requires such property to be transferred in accordance with regulations prescribed by the Secretary concerned and

also with regulations issued by the GSA Administrator under section 121 of Title 40 which require demilitarization of Category C aircraft and flight safety critical aircraft parts. Category C aircraft are combat aircraft with no commercial application.

- DOD Manual 4160.21M, Defense Material Disposition Manual (1997) and DOD Manual 4160.21-M-1, Defense Demilitarization Manual (1991) implement the FMR and 10 USC 2572. These directives permit the Secretary of a military department to “lend, give or exchange for historical, ceremonial or display purposes, without expense to the United States, books, manuscripts, works of art, drawings, plans, models and condemned or obsolete combat material that are not needed by that department” to organizations and entities identified in 10 USC 2572. Aircraft are to be demilitarized in accordance with the guidance provided in the manual “without destroying the display value.”
- Air Force Instruction 16-402, Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination (2009), specifies that “aerospace vehicles being loaned to private museums are required to be demilitarized before being put on display.”
- Air Force Instruction 84-103, US Air Force Heritage Program, (Chapter 12, paragraph 12.3.4), states “Loaned aerospace vehicles will not be flown or restored to flying condition under any circumstances.”
- Air Force Manual 23-110, USAF Supply Manual, Volume 6, Excess and Surplus Personal Property (2011) specifies in Chapter 8.3 that “aircraft and missiles shall be donated only for static display purposes – not for flight use” (emphasis in original text).
- SECNAV Instruction 5755.2A, Department of the Navy Museum Exchanges, requires appropriate demilitarization of items in accordance with DoD 4160.21-M (Defense Materiel Disposition Manual), i.e., demilitarization prior to transfer.
- 10 U.S.C. §2790, recently enacted provision that prohibits members of the armed forces, civilian employees and contractor employees from disposing of military or Government property, except in accordance with the statutes and regulations governing Government property.
- 22 U.S.C. § 2778, governing the import and export controls over defense articles
- 22 CFR § 121.1, regarding the US Munitions List and identifying aircraft and associated equipment as Significant Military Equipment (SME), so designated because of their capacity for substantial military utility or capability
- 22 CFR § 121.3, which in the context of the US Munitions List, distinguishes between aircraft designed and equipped for military purposes (even including

demilitarized aircraft) and aircraft not specially equipped and not modified for military operations, such as certain cargo, trainer and observation aircraft.

Note: Given the current regulatory and statutory framework, the transfer of flyable military aircraft would not be permitted without specific authorization to allow transfer of such aircraft to NFEs

9 – LIABILITY CONCERNS

Transfer of Category C aircraft to private individuals or organizations for operational (flight) purposes will likely expose the U.S. Government to liability for loss, damage, or death should a mishap occur involving a donated aircraft. The key precedent for third party liability is *Miles vs. Navy Aviation Museum Foundation, Inc.*, 289F.3d 715 (11th Cir. 2003). The Navy was held liable despite indemnification provisions in the transfer agreement. The court noted that the injured third party could not be bound by the terms of a contract to which they were not a party. An additional significant aspect of this case is that the Government's liability was due, at least in part, to apparent use of uncertified mechanics. The Government was held liable notwithstanding an "as is/where is" provision in the transfer agreement. Potential liability, therefore, can reach back to actions that may have occurred many years prior to a transfer.

This represents the possibility of continuing liability over a long and extended period of time. As mentioned above, access to the Service's supply systems will likely be sought by private parties seeking to maintain donated aircraft. Apart from liability for the aircraft, the provision of spare parts (or other support) carries its own additional risk of liability should a part fail and result in injury, death, or property damage. Again, based on *Miles*, it is unlikely that liability can be effectively removed from the Government by way any agreement of the parties. The likelihood of liability will only increase the more the Government is entangled with the NFE after a transfer. It is one thing for the DoD to assume such responsibility for itself while it is actively flying an aircraft, but it is another to have potential liability for the Government based on an inactive aircraft that no longer supports the DoD mission.

On those limited occasions when Congress has legislatively mandated the transfer of an aircraft from the active inventory (not from the historical collection) to a private organization, the legislative provisions have included language intended to absolve the United States of liability. Inclusion of such language will not necessarily stop a determined or creative plaintiff from filing suit for damages alleged to have resulted from Government involvement with the aircraft. The defense of these potential lawsuits would result in the expenditure of significant Government resources.

Inclusion of such language will also not stop the recipients of any aircraft from returning to the Government, sometimes in a very persistent manner, to obtain parts or maintenance required to keep that aircraft operational, thereby voiding the liability language. As expertise and sources of parts diminish, private owners/operators will increasingly turn to the Government as a principal source for desired logistical support. To emphasize, post-transfer involvement by the Government with an aircraft (through provision of advice, parts or maintenance services)

could easily void the protections imposed by law at the time of the transfer and establish new grounds for a claim of Government liability.

Understandably, these organizations intend to honor the nation's veterans; however even one mishap will undo whatever goodwill their efforts might have generated. An air show event will garner local attention, but a mishap would result in nation-wide attention. A vintage Air Force, Navy or Army aircraft, even if flown by a non-military pilot, is a de facto representative of the U.S. Military although the military would have very limited or no say whatsoever in the manner in which it will be flown and maintained. The exposure of the U.S. Military image and reputation, or even the perception thereof, due to the actions of an entity over which DoD has no control is inadvisable.

Private organizations do not need to fly Category C aircraft to honor America's veterans. Other avenues are available to honor veterans from all wars and conflicts. The Air Force's aerial demonstration team, the Thunderbirds, the Navy's Blue Angels and the Army's Golden Knights perform at air shows throughout the world in honor of all who have served.

As indicated by the areas of concern addressed by FAA policy, there are other categories of risk that are perhaps not as readily apparent. For example, there is the practice of selling backseat rides to third parties. Given this practice, there are a variety of security and safety questions concerning what practices and oversight can reasonable be put in place for the screening of the passengers and whether proper egress training for passengers is provided.

As *Miles* demonstrates, the potential for liability may well remain notwithstanding any language that purports to hold the Services harmless. Furthermore, even if a transfer agreement imposes restrictions on flight operations or other activities, the Services would not be in a position to regularly monitor compliance. It would also put the Services in the position of having to expend resources on matters that do not further mission accomplishment.

Apart from the risk of harm to members of the public, there is assuredly a significant cost in defending against such lawsuits and inevitable damage to the image of the Services and the Department of Defense as well. Even if there is not liability in the sense of owing damages, the Military could face severe adverse publicity in the event of a mishap involving a transferred aircraft, particularly since the aircraft may continue to have Military markings.

10 – AVAILABILITY OF AIRCRAFT AND PARTS FOR TRANSFER

With respect to availability, there are only a limited number of historical aircraft. Any aircraft designated for transfer to a NFE for flight, is a historical resource not available to bona fide museums and veterans organizations for display. In addition, as discussed above, there are a number of considerations involved in the availability of spare parts for transfer. Recipients are likely to return multiple times seeking logistics, engineering, or maintenance assistance because the Military Services are likely to be the only source for this support. The Services do not maintain a supply system or inventory of parts available for aircraft not in the active inventory. Further, the availability of spare parts for these historic aircraft is extremely limited or non-existent and the quality, especially with respect to flight safety characteristics, of any existing

spare part is unknown. Once stricken, no analysis of the flightworthiness of the aircraft parts is undertaken. The viability of such parts for flight would require an extensive engineering analysis. Likewise, the extent and accuracy of historical records for specific aircraft and parts is a tremendous unknown. Spare parts are not maintained separately and, if not reclaimed, are left installed on stricken aircraft. Removal of parts from an aircraft is a labor intensive process, with no guarantees that once removed the parts would be suitable for restoration. All efforts related to determining availability and suitability of aircraft and spare parts for transfer to a NFE would be resource and labor intensive. Again, all such requests tend to be time consuming to respond to and to resolve.

Should legislation easing or mandating transfer to NFEs be enacted, Services would be in a difficult position in terms of evaluating and prioritizing these requests. A considerable investment in time and funds would be needed in order to develop the expertise to investigate a requestor's safety record, financial stability, and background to operate flyable aircraft. These are outside of the Services core mission responsibilities. In addition, this is a much more complex undertaking than verifying an organization's credentials, for example, as a bona fide museum. In conclusion, a significant increase in manpower, program and management costs for the Department of Defense would almost certainly be involved, but would be without benefit to mission capabilities or mission accomplishment.

Another concern is potential adverse impact on law enforcement efforts. The Services have partnered with various law enforcement agencies in the investigation and apprehension of individuals who have trafficked in controlled materiel—the same materiel that would potentially be made available if rules regarding the transfer of flyable aircraft are relaxed. Congress, DLA, Naval Criminal Investigative Service (NCIS), DHS, and other federal entities have been energetically working to limit transfers of military aviation equipment due to security concerns. There is a large and lucrative commerce in military aircraft parts and components. Once parts have been removed from transferred aircraft there would presumably be little to prevent the entrance of these parts into the black market or overseas markets. Therefore, there is concern that liberalizing transfer procedures would risk not only distorting the legitimate commercial market, but would also seriously blur the distinction between legal and illegal trafficking in aviation combat materiel

11. LONG-TERM PRESERVATION OF AVAILABLE AIRCRAFT

The National Museum of the United States Air Force executes the Secretary's statutory authorization to loan property from the national historic collection through the Civilian Museum Loan Program (for qualified civilian museums) or the Static Display Program (for qualified veterans organizations, cities or municipalities), as well as to foreign museums. All such loans are executed solely for the purpose of static display. In the interests of historic preservation and conservation standards, public safety and the potential for liability on the part of the Air Force or other agencies of the United States Government, aircraft from the national historic collection are not donated or loaned to any organization for civilian operational activity. The same is true of the Navy.

The national historic collection is a collective term used to describe federally-owned and administered historical property. The term “national” aligns with the statutory designation of other historic and cultural assets held in trust for the American people, such as historic sites; memorials; historic landmarks; museums and galleries; and national collections in the management control of federal departments and agencies.

In addition to aircraft in the national historic collection, Air Force aircraft not currently in the active fleet are maintained at various locations, principally the Air Force’s Aerospace Maintenance and Regeneration Group (AMARG) located adjacent to Davis-Monthan Air Force Base, Arizona. These aircraft are maintained in various states of “mothballing” – some for possible return to military service or use by another Government agency and others as sources for critical spare parts for aircraft which are in the active fleet. While historic preservation is a lower priority with these aircraft, concerns for public safety and potential liability on the part of the Air Force or other Government agencies underlie the Air Force’s long-standing opposition to any transfer of these aircraft for civilian operational activity.

Similarly, when aircraft are stricken from the active Naval inventory, they are screened for parts that may be used and returned to the supply system. This is conducted per DoD policy to reutilize excess parts before procurement or repair (DoD 4160.21-M, Ch 5, at p. 5-1) and per local instructions covering the Stricken Aircraft Reclamation and Disposal Program (SARDIP). Thus, once aircraft are stricken, parts are reclaimed and then reutilized in many other capacities, including returning the parts to the supply system and uses such as for test beds or maintenance trainers. This allows for the most efficient and cost effective means of supply support for aircraft spare and repairable parts.

In addition to parts reclamation and reutilization efforts, the aircraft and parts are screened for other uses before disposal. See DoD 4160.21-M, Defense Materiel Disposition Manual. Depending on the applicable designated category, aircraft are screened for uses by other Military Services, GSA, law enforcement and foreign sale. The applicable categories of aircraft are: (NOTE: The following categories were already described in part 2: “Background”)

- Category A are aircraft authorized or sale or exchange for commercial use and do not require demilitarization.
- Category B are aircraft that are used for ground instructional and static displays and have generally not been maintained to airworthiness standards, which precludes their use as flyable aircraft.
- Category C aircraft are combat configured as determined by the Military Services and are provided for display and require demilitarization.

Arguably, static displays provide the best means of ensuring the long term preservation of historical aircraft. Inherent in flying such aircraft is the risk of a mishap or crash, which could permanently destroy the artifact.

12 – PUBLIC ACCESS TO AIRCRAFT TO BE TRANSFERRED

The National Historic Preservation Act of 1966 established the preservation of historically significant items as “in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans” and dictated that historic resources be administered “in a spirit of stewardship for the inspiration and benefit of present and future generations.”

For military aircraft included in the national historic collection, an externally mandated reallocation infringes upon the statutory authority of Service Secretaries to administer these assets in the best interest of the American public. Reallocation of aircraft from the national historic collection to non-Government individuals and organizations for personal operational use establishes a precedent that historical property may be stripped from National Collections (Smithsonian, National Park Service, military service collections, etc.) and transferred to private ownership. This result is contrary to the good stewardship of artifacts held in trust for current and future generations.

Not only would this practice set an unsustainable precedent, it would seriously undermine the professionalism, effectiveness and integrity of long established standards of the Services and Department of Defense cultural resources management.

Setting a precedent of removing from the public historical artifacts for re-issuance to private organizations establishes a dangerous path. What would stop an individual of wealth from purchasing other items of historic value? Could the Wright Flyer be purchased for personal use/display?

Artifacts generate a great deal of public and private interest. For every aircraft transferred to a non-Government institution for the purpose of restoring to flight, one less aircraft is available for display in museums and air parks. Communities and organizations have significant emotional attachment to artifacts representative of their heritage displayed in their museums, airparks, DoD bases, and public areas. A recall of aircraft from the national historic collection for transfer to a private organization is expected to generate a significant political reaction from locations required to sacrifice aircraft displayed there.

Transfer of flyable aircraft is likely to adversely impact the management of heritage resources. It is the Department of Defense’s opinion that heritage aviation assets should remain in the public domain available to as many members of the public as possible and that short term benefit for the few is incompatible with long term preservation for future generations. This goal is best served by making historical aircraft available for static display rather than transferring for purposes of flight.

While there is understandable interest in flying historic aircraft, there are equal, if not greater, benefits to displays in museum or similar settings. For example, museum displays allow for close viewing and historical narrative to accompany an exhibit. In addition, static displays generally are more available and accessible (and likely at more reasonable cost) to the greatest

number of people. On one NFE website it states that “while the exact number of visitors is difficult to gauge, it is estimated that between 3.5 and 4 million people see these warbirds annually.” Comparatively, the Smithsonian Air and Space Museum reports an average of 9 million visitors per year. There are hundreds of aviation museums and displays around the country that provide the public an opportunity to view these aircraft up close and which provide historical background. Many of these museums are free to the public or charge an admission fee that is typically less than an airshow, and are available to the public on an ongoing, often daily basis as opposed to the occasional, perhaps once a season, access via an airshow.

The cost of experiencing flight with a NFE is not something the average citizen could afford. Based on information from one website, the cost of a 30 minute flight in a B-17 is \$425.00 per person, while one hour of flight instruction in a P-51C “Mustang” is \$3,200.00. Changing statutes and policies which could potentially increase risk to public safety and national security so a very limited and elite group of individuals can experience nostalgic flight is not in the best interest of the United States.

The Military Services are statutorily mandated to preserve historical artifacts. Trained curatorial staff now put great effort into holding such aircraft in stewardship for the public and making them available for educational, memorial, and patriotic uses. Attempts to liberalize donations would undermine the current system of carefully constructed qualification and monitoring procedures and severely limit the ability of the Services to ensure that former military aircraft are not being used in such a way as to bring discredit to the military or to the nation.

Another consideration is that a good portion of these flyable aircraft could be used for fundraising activities or for the purpose of business development in the pursuit of U.S. government contracts. Therefore, the distribution of excess Military aircraft to for-profit companies would have the potential of providing a competitive advantage to the receiving entities. This could potentially distort the market for aviation services and run the risk of accusations of preferential treatment. A precedent should not be set for the redistribution of taxpayer funded assets to private individuals and organizations for the purposes of financial gain.

13. PROPOSED CRITERIA TO EVALUATE REQUESTS FOR TRANSFER

While DoD, FAA, GSA and DHS oppose lessening the restrictions on the transfer of flyable aircraft to NFEs, should that be the future direction, there are a number of considerations associated with such transfers. Any such transfer must be after assets are determined excess (including under all existing screening conducted today). The transfers cannot be permitted in a manner inconsistent with national security. Such transfers must be at no-cost to the Military Services with all costs fully reimbursable to the Government, including possible reimbursement for the time and materials involved in the transfer and the cost or value of the airframe itself, so as to better recoup some of the taxpayer’s investment. Any aircraft provided would be on an as is/where is basis, no Government-provided spare parts or spare part support would be required and the recipient would have to assume all liability and indemnify the Government for any potential liability, including providing evidence of sufficient insurance to ensure the financial viability of the indemnification.

Demilitarization of certain key points on the aircraft would be required. Key points would include (but not limited to) the following:

- **Weapon Systems**
 - Pylons for external stores (armament, fuel, etc.)
 - Gun barrels
 - Launcher barrels
 - Tubes or pods
 - Receivers
 - Firing mechanisms
 - Gun rotor assemblies
 - Delinking and declutching ammunition feeders
 - Aircraft mounted cannon electric drive assemblies and mounts
 - Internal Aircraft ammunition storage assemblies
 - Ammunition crossover assemblies
 - Magazines and chute assemblies
 - Controllers
 - Intervalometers
 - Gunner control panels
 - Pilot wing control panels
 - Reflex sight
 - Technical data
 - Associated armament, equipment and subsystems
- **Navigation Systems**
- **Mapping or Reconnaissance Capabilities**
- **Airborne Warning Systems**

- Afterburners
- Radar Absorbing Materials
- Impact detectors and Circuitry
- Target Selection Equipment

While demilitarization requirements may limit what aircraft might be flyable, transfers without demilitarization pose unacceptable risks. Consideration should also be given to which NFEs could be considered bona fide recipients, and what threshold requirements (e.g., safety record) should be imposed. A NFE seeking the transfer of a military aircraft should be required to provide a detailed maintenance program that meets the same standards and level of detail the U.S. Military required at the time these aircraft were active. The NFE should also be required to prove they have a flight training program that is equal to the same training standards that the U.S. Military required at the time these aircraft were active. This would include the same level of ground school, simulator training, flight training and the progression from training aircraft to advanced military aircraft.

As mentioned numerous times in the report, these are complex military aircraft. The Military Services spent hundreds of millions of dollars maintaining these aircraft and training their pilots to ensure operational readiness and a world-class safety standard. To allow an NFE to own and operate these same aircraft at anything less than the same standard will jeopardize national security, threaten public safety, and could tarnish the reputation of military aviation should an incident occur with one of these aircraft.

14. NON-FEDERAL ENTITY ABILITY TO MAINTAIN DOD STANDARDS

It is unlikely that a NFE could comply with the DoD standards addressed above for repair, maintenance and safety of flight. It presents an entire new level of challenges and resources, however, for the Services to have any responsibility to apply or verify such standards to non-military entities.

Of particular concern in this area is configuration and operational control matters. Once ownership of a military aircraft has been transferred to a private entity, the Services would have no input into the selection or training of pilots. Compliance with maintenance standards would be impossible to monitor. This would be true not only for vintage aircraft, but for more modern high performance jets. Neither would the Services have any means of communicating engineering change proposals, technical directives, or critical safety bulletins. Monitoring donated aircraft for airworthiness would require increase in resources and coordination with FAA, GSA and DHS. Unauthorized use of the aircraft, such as renting to others, would be difficult to police and enforce.

Currently, there is a request from a NFE to acquire an F-105. This is a good example of the challenges and difficulties that would be encountered to maintain and operate an aircraft of this type. The F-105 was a complicated aircraft that required extensive maintenance during its early service with the Air Force. Initially, the aircraft required 150 maintenance man-hours per

flight hour to keep it in the air, as compared to about 25 for the F-15. Modifications to the aircraft eventually decreased the maintenance hours required, but the aircraft remained a complicated aircraft to both fly and maintain.

The Air Force retired the last F-105G in 1984. Currently, there are no pilots who possess a passing proficiency in the aircraft. At best the last pilots to fly this type of aircraft are now in their late 50s. A difficult aircraft such as the F-105 would require current test pilots to familiarize themselves with the characteristics of the aircraft prior to providing a checkout program, scope unknown, to any other entity's pilots.

An example of what can happen in the absence of intensive, institutional support of sophisticated military aircraft is illustrated by the crash of a former South African Air Force English Electric Lighting T Mark 5 fighter trainer aircraft in 2009. Purchased by a private individual for public flight demonstrations and "ride along" orientation flights, South African aviation safety authorities determined that the owner failed to perform timely inspections and maintenance of the safety and hydraulic systems, resulting in the loss of the aircraft and pilot's life. Given current resource cutbacks and efficiencies moves, the Government is not in a position to take on such long-term institutional support, even if it were willing to absorb the countless liability issues inherent in such a program.

15 – REVERSIONARY RIGHTS

As previously stated, military display aircraft are not transferred for purposes of flight and are not intended to meet airworthiness standards. Title to these static display aircraft does not pass to the recipient. They are conveyed by means of a Conditional Loan Agreement which provides for maximum government oversight. The Conditional Loan Agreement also serves to limit government liability, preserve the artifact according to acceptable standards, and ensure the greatest possible benefit for the public. Further transfer of the aircraft without the permission of the Service is not permitted. Should the restrictions on transferring/loaning flyable aircraft be lessened, the same reversionary rights need to apply. Once the aircraft is no longer used by the NFE for the purpose which justified the original transfer, or the NFE is found in violation of applicable maintenance or safety standards or is otherwise unable to maintain the aircraft, it would revert back to the Service to be either transferred/loaned to another qualifying entity or returned to static display or military storage.

16 – OTHER ISSUES TO CONSIDER

The Air Force operates and organizes system program offices (SPO) with engineering sections that monitor the airworthiness of specific aircraft under its control. Problems related to corrosion, cracking and fatigue are constantly monitored to prevent a catastrophic failure of the fleet. The Navy provides similar oversight through its program offices. Due to flight regimes in which Category C aircraft were typically flown, this monitoring is especially important and, as such, many aircraft have been retired over the years because of these issues.

If required by legislative language to generate a SPO-type capability for aircraft no longer in service, the Services would be forced to expend substantial resources to re-establish a

fundamental baseline of skills, knowledge and abilities needed to support an external entity. To initiate this type of a program would involve a substantial system of record keeping ensuring an appropriate tracking capability. Such expenditures would yield little mission payback to the Services' mission, even if some fee for parts or services system were instituted. In this regard it should be noted that on one occasion the Government has not received full compensation for such services in the limited circumstances where they have been rendered.

If parts were not available through the DoD, the entity could attempt to acquire parts commercially or have them manufactured. If so, the Services would have no way of guaranteeing the parts meet military specification standards that are required to provide adequate safety during routine flights.

The expense to the government in providing pilot certification and training to non-Governmental owners and operators of these sophisticated aircraft is unknown, but expected to be substantial considering the lack of currently qualified aircrew and maintenance personnel.

17 – CONCLUSION

DoD advises against statutory and regulatory changes that would relax restrictions against the transfer of flyable aircraft, whether vintage or modern, beyond the limits as they exist today. DoD particularly supports restrictions against transferring combat or military aircraft. This is a reasonable and necessary prohibition and there is no compelling reason for change. There are particular concerns with transfers to private individuals and organizations because such transfers would impose significant financial and administrative burdens to the United States Government, present unacceptable safety risk to operators and the public, erode the authority of the Services, and potentially do harm to heritage assets. Threats to national security are also overriding concerns.

The substantial risks of transferring Category C aircraft to NFEs far outweigh any potential benefit to the interests of the United States Government. While various processes might be devised to screen requestors and match them with available aircraft (from outside the national historic collection), the expense to the Federal government involved both initially and as an on-going matter, as well as the potential likelihood of claims of liability against the Government, dictate against the feasibility of such a program.