

LA2 LANGLEY AFB, THE PROPOSED ACTION

This section details the actions that would occur at Langley AFB, Virginia, and in its associated training airspace if Langley were selected for the beddown of the Initial F-22 Operational Wing.

LA2.1 Langley AFB: Base

Four elements of this proposed action have the potential to affect Langley AFB. These four elements are (1) drawdown (removal) of F-15Cs and beddown of F-22s, (2) sorties by F-22s, (3) construction, and (4) personnel changes. Each is explained below.

LA2.1.1 Drawdown of F-15Cs/Beddown of F-22s

Langley AFB, as the proposed action, is the Air Force's preferred location for establishing the first F-22 Operational Wing. Implementing the beddown of the Initial F-22 Operational Wing at Langley AFB would result in the least disruption to overall Air Combat Command (ACC) and Air Force readiness. A total of 72 Primary Aircraft Inventory (PAI) F-22 aircraft, divided into three squadrons of 24 aircraft, would comprise the proposed wing. In addition, each squadron would receive two Backup Inventory Aircraft (BAI) F-22s as replacements for operational aircraft requiring maintenance or otherwise out of service. The F-22 beddown would start in September 2004 with delivery of the first F-22 to the base. By June 2007, when the full complement of 72 F-22s would be at the base, the beddown would be completed.

PAI consists of the F-22s authorized and assigned to perform the wing's missions. BAI includes F-22s used as substitutes for PAI aircraft undergoing maintenance or otherwise unable to fly.

The F-22 would replace the 66 PAI and 6 BAI F-15Cs at Langley AFB. Timing of the F-15C replacement would generally match the beddown of F-22s (Table LA 2.1-1), but the F-15Cs would be removed at a slightly faster rate than the beddown of the F-22s. At no time would the combination of F-22s and F-15Cs on base exceed the final total of 72 PAI and 6 BAI (2 BAI in each of the three squadrons) F-22s proposed for the wing.

Langley AFB also supports a few other aircraft types including the F-16 fighter (4) and the C-21 transport (6) for a baseline total of 82 aircraft. Aircraft belonging to the National Aeronautics and Space Administration (NASA) Langley Research Center and various transient aircraft (visitors), including the A-10, B-1, and C-5 also use the airfield. At completion of the beddown, the base would support 88 (PAI and BAI) aircraft and would continue to be used by transients and NASA-Langley Research Center aircraft.



The Air Force proposes to drawdown Langley AFB's F-15C operational squadrons concurrently with the F-22 beddown.

Table LA2.1-1. Proposed F-22 Beddown and F-15C Drawdown Schedule: Langley AFB

Year	<i>Based F-15C PAI Aircraft</i>	<i>F-22 PAI Aircraft</i>	<i>Total PAI¹ Aircraft</i>
Baseline	66	0	66
2004	53	7	60
2005	28	32	60
2006	2	58	60
2007	0	72	72

Note: 1. Totals include only F-15C and F-22 aircraft.

LA2.1.2 Sorties

Like existing F-15C squadrons at Langley AFB, the operational F-22 squadrons would be integrated into the Air Force's Expeditionary Air Force (EAF) Construct. The EAF Construct grew out of the need for the United States to deploy forces worldwide despite the reduction in United States overseas basing and personnel. Under the EAF, the Air Force has divided its forces into 10 Aerospace Expeditionary Forces (AEFs) and 2 Aerospace Expeditionary Wings (AEWs) to make worldwide deployments more predictable and manageable. An AEF is a "packaged" group of different types of aircraft with a mix of capabilities suited to the tasking to overseas locations for about 90 days. These AEFs consist of wings or squadrons from multiple United States bases, and may operate as a unit or be integrated with other forces overseas. Pre- and/or post-deployment training at locations other than a "home" base also occurs for about another 30 days out of the year. Squadrons or wings are rotated into the AEF program on a 15-month cycle.

The Air Force anticipates that by 2007, the Initial F-22 Operational Wing would fly 11,187 sorties per year from Langley AFB. Based on projected requirements and deployment patterns under the AEF program, the F-22 Operational Wing would fly an additional 5,760 sorties at overseas airfields during deployments, or at other locations for exercises or in preparation for deployments. On average, each squadron (24 PAI aircraft) would be deployed for 120 days per year (90 days AEF and 30 days for pre- or post-AEF training); this equates to a single squadron being deployed all year. In addition, each squadron would participate in training exercises and operate out of another United States or overseas base for an average of one week per year, flying another 333 sorties (or 111 sorties per squadron) at remote locations other than Langley AFB. Some of these missions would involve ordnance delivery training or missile firing at approved ranges such as the Nellis Range Complex in Nevada, Utah Test and Training Range, or Eglin AFB's over-water ranges in the Gulf of Mexico.

Beddown of F-22s at Langley AFB would result in approximately a 7 percent increase in total sorties.

The 11,187 F-22 sorties at Langley AFB would represent an increase of 1,251 annual sorties above total baseline levels (Table LA 2.1-2). This approximate 7 percent increase in total sorties occurs because of two factors: six more aircraft (72 F-22s minus the 66 F-15Cs for a total of six more F-22 aircraft) and the increased sortie rate by the

F-22s (20 sorties per aircraft per month) as compared to the lower rate of the F-15C (18 sorties per aircraft per month). After completion of the beddown, the F-22s would perform about 60 percent of total sorties at the base. Currently, F-15Cs account for 57 percent of the total sorties.

Table LA2.1-2. Comparison of Baseline F-15C and Projected F-22 Annual Sorties

<i>Baseline</i>	<i>Sorties</i>	<i>Projected</i>	<i>Sorties</i>
F-15C	9,936	F-22	11,187
Total All Aircraft	17,531 ¹	Total All Aircraft	18,782 ¹

Note: 1. Includes 7,595 sorties by other based and transient aircraft.

The F-22s would employ similar departure, closed patterns, and landing procedures as currently used by the F-15Cs at the base. F-22 operations would adhere to existing restrictions, avoidance procedures, and the quiet-hours program at Langley AFB. However, the F-22's power would allow it to accelerate more quickly to climb speed and throttle back its power sooner (only 2 miles past the departure end of the runway). In contrast, the F-15Cs maintain a higher power setting throughout their climb. Overall, this capability of the F-22 would result in lower noise exposure in the airfield environment as the aircraft takes off.

The F-22 would fly the same percentage (30 percent) of sorties after dark (i.e., about 1 hour after sunset) as the F-15Cs under the Air Force's initiative to increase readiness. Approximately 5 percent (out of the total 30 percent) of the after-dark sorties are expected to occur during environmental night (10:00 pm to 7:00 am), which is identical to the F-15Cs. The rest are expected to occur about 1 hour after sunset. While the percentages of environmental night operations would not change with beddown of operational F-22s, the total annual sorties during this period would increase by 62, or by less than 1 per flying day (260 flying days/year).



A sortie is the flight of a single aircraft from takeoff through landing. F-15Cs annually fly 9,936 sorties from Langley AFB.

Environmental night (10:00 pm to 7:00 am) is the period when the effects of aircraft noise on people are accentuated.

The F-15Cs at Langley AFB currently take off with afterburner about 5 percent of the time (personal communication, Day 2000). Historically, this percentage has ranged from as low as 5 percent up to 60 percent, depending on mission requirements and factors such as temperature and humidity. The F-22s are expected to use the afterburner 5 percent of the time or less to take off.

LA2.1.3 Construction

In order to support F-22 operations, additional infrastructure and facilities would be required at Langley AFB (Table LA2.1-3). A total of 26 demolition, construction, modification, or infrastructure improvement projects would be undertaken from 2002 to 2004 (Figure LA2.1-1).

**Table LA2.1-3. Proposed Construction and Modification
for Langley AFB**

<i>Year</i>	<i>Description</i>	<i>Action</i>	<i>Affected Area In Acres</i>
2002	Fighter Squadron Operations/ Maintenance Hangar	Demolish and Construct	3.26
2002	Base Operations/Weather Building	Construct	0.23
2002	Low Observable Composite Repair Facility	Construct	1.46
2002	Airfield Lighting Vault	Construct	0.05
2002	Flightline Infrastructure	Upgrade	NA
2002	Operations/Logistics Group	Repair	NA
2002	Distinguished Visitor Route Landscape Repair ¹	Repair	NA
2003	Flight Simulator Building (Building 365)	Demolish and Construct	0.09
2003	Flightline Kitchen	Construct	0.18
2003	Fighter Squadron Operations/ Maintenance Hangar	Demolish and Construct	3.26
2003	Aerospace Ground Equipment Fuel Tanks	Construct	0.23
2003	Various Munitions Facilities	Repair	NA
2003	Restripe Airfield Pavements	NA	NA
2003	Hush House Pull Test	NA	NA
2003	Engine Shop	Repair	NA
2003	West Apron	Repair	NA
2003	Storm Drainage System	Repair	NA
2003	Flightline Supply Parts Building	Repair	0.28
2003	Vertical Wing Tank Storage	Construct	0.66
2004	Fighter Squadron Operations/ Maintenance Hangar	Demolish and Construct	3.26
2002/03/04	Associated Utilities/Infrastructure	Construct	2.93
		Total	≈16 acres
<i>Proposed Concurrent Non-F-22 Beddown Construction</i>			
2004	Hydrant Refueling System – West Apron	Replace and Upgrade	8.6
2004	Clearwater Rinse Station	Construct	0.92

Note: 1. Distinguished Visitor Route improvements include changes to previously disturbed areas.

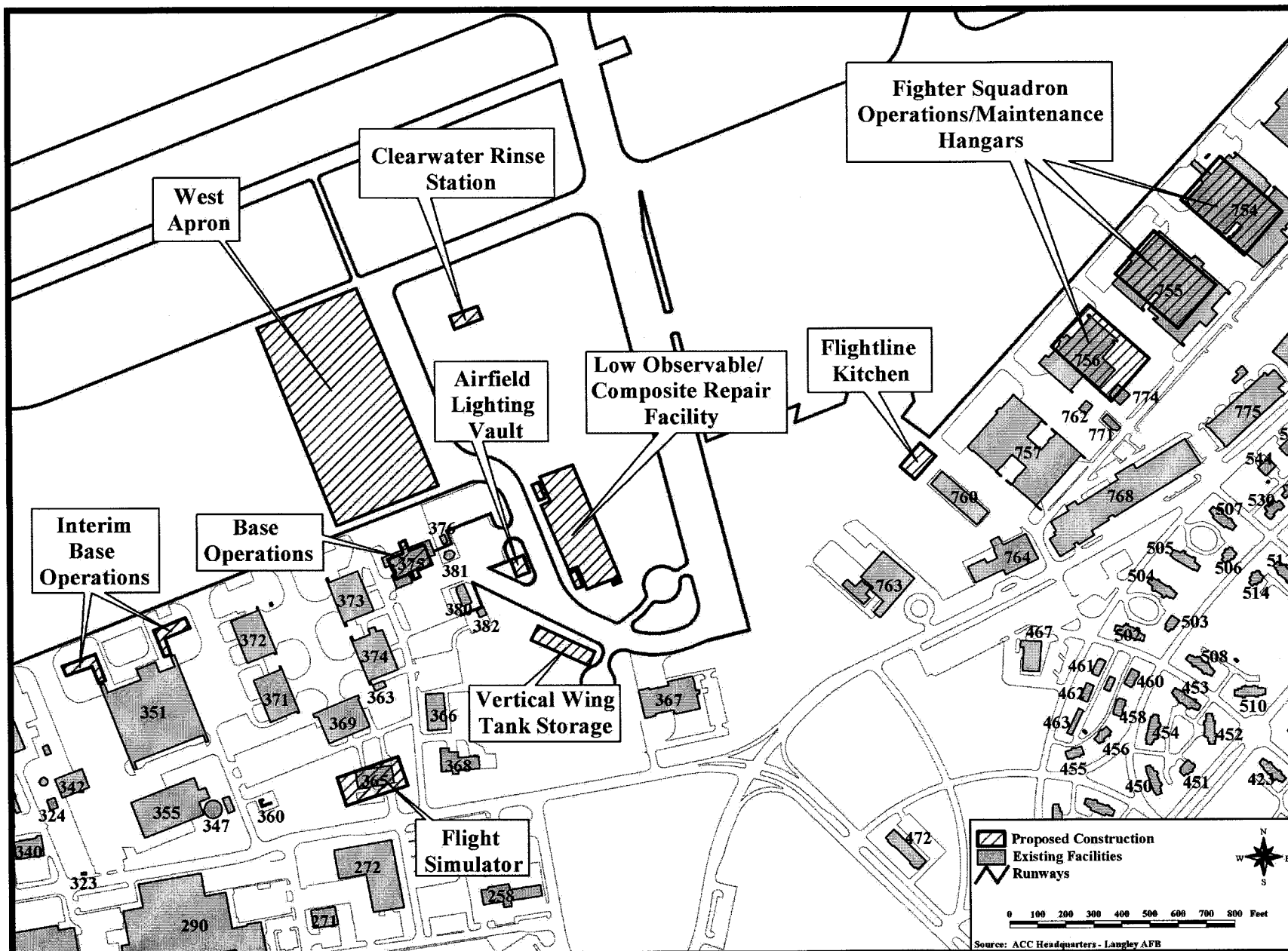


Figure LA2.1-1
Proposed Major Construction Projects at Langley AFB

Most construction would occur between 2002 and 2004. In total, the construction, modifications, repairs, and infrastructure improvements would affect about 16 acres and cost approximately \$98.2 million. Affected acres comprise the total area covered by the construction footprints of the proposed facilities, plus the surrounding lands where construction-related clearing and grading would occur.

Infrastructure upgrades, such as connecting new facilities to water and power systems, would also add to the affected areas on the base. Additionally, other planned military construction activities for current operations would also occur at Langley AFB and would enhance the base's ability to support based aircraft. These projects, planned for 2001, include remodels or upgrades to the Gold Flag, Security Forces, and Armament Facilities.

Demolition of three existing hangars and construction of new hangars and associated facilities represent the most substantial construction projects proposed at Langley AFB. All construction and modification projects would be located near the flightline (refer to Figure LA2.1-1).

Two additional base projects, the Hydrant Fueling System-West Apron and the Clearwater Rinse Station, have been included in the analysis, since they are proposed for construction during the same timeframe as the F-22 program and they provide support to the Langley AFB mission. The Hydrant Fueling System would provide simultaneous refueling capability that is not currently available at Langley AFB. The Clearwater Rinse Station would enhance operations by providing a rinse station in close proximity to the aircraft parking apron.

Affected acres include the area covered by the footprints of the facilities, plus surrounding lands where construction-related grading and clearing would occur.

LA2.1.4 Personnel Changes



There would be an approximate 2 percent decrease in personnel at Langley AFB with the beddown of the Initial F-22 Operational Wing.

Beddown of the F-22 Operational Wing would also require basing sufficient and appropriately skilled personnel to operate and maintain the wing and provide necessary support services. Overall, 1,846 personnel would be required to support the Initial F-22 Operational Wing. For Langley AFB, the F-22 personnel positions would be drawn from the equivalent positions associated with existing F-15C manpower authorizations. As such, total personnel would decrease by 243 due to the almost one-for-one replacement of the F-15Cs (Table LA2.1-4). Fewer personnel, particularly for maintenance, would be needed for the F-22 wing than for an equivalent number of F-15C aircraft. The beddown would occur in three equal phases associated with the establishment of the three squadrons (Table LA2.1-4), starting in September 2004 and ending by June 2007.

Table LA2.1-4. Proposed Personnel Changes: Langley AFB

	BASELINE		PROJECTED		Total Change in Personnel	CHANGE PER BEDDOWN PHASE ¹		
	Baseline Personnel F-15C	Baseline Personnel Total	Projected Personnel F-22	Projected Personnel Total		September 2004 –August 2005	September 2005 –June 2006	September 2006 –June 2007
Officer	155	2,047	169	2,061	+14	+4	+5	+5
Enlisted	1,909	6,206	1,598	5,895	-311	-103	-104	-104
Civilian	25	2,441	79 ¹	2,495 ¹	+54	+18	+18	+18
Total	2,089	10,694	1,846	10,451	-243	-81	-81	-81

Note: 1. Includes 54 contractor personnel.

LA2.2 Langley AFB: Training Airspace

LA2.2.1 Airspace Use

As the replacement for the F-15C at Langley AFB, the F-22 would conduct the same missions and training programs as the F-15C (refer to Chapter 2). The Air Force expects that the F-22 would operate in the airspace associated with Langley AFB in a manner similar to the F-15C operational squadrons now using that airspace. All F-22 flight activities would take place in existing airspace; therefore, no airspace modifications would be required for the F-22.

The affected airspace for Langley AFB consists of primary and occasional use airspace (Table LA2.2-1 and Figure LA2.2-1). Primary airspace includes one overland Military Operations Area (MOA) and six offshore Warning Areas (designated with a “W”) that the F-22 would use on a continuing basis for training. Chapter 2 provides definitions of these airspace units. Langley AFB F-15Cs use this primary airspace for 95 percent of their sortie-operations.

Use of the primary airspace, particularly the Warning Areas, is dominated by other aircraft from the Navy (F-14, F-18) and other Air Force (A-10, F-16) units. The Langley AFB F-15Cs account for about 12.5 percent of total sortie-operations in the primary airspace and only contribute 1, 2, and 3 percent of the total sortie-operations in W-107, W-110, and W-122, respectively. W-72 and W-386 receive the most use by the Langley F-15Cs, accounting for 8 and 39 percent of total activities in these airspace units, respectively. All primary airspace lies within the flight distance available during a standard daily training flight.

A sortie-operation is the use of one airspace unit by one aircraft.

Table LA2.2-1. Baseline and Projected Annual Sortie-Operations in Airspace Associated with Langley AFB

<i>Airspace Unit</i>	<i>Floor (feet)</i>	<i>Ceiling (feet)</i>	<i>Baseline F-15 Use</i>	<i>Total Baseline Use</i>	<i>Projected F-22 Use</i>	<i>Projected Total Use</i>
Primary Airspace						
Farmville MOA	300 AGL	5,000 MSL	555	619	317	849 ¹
W-72	Surface	unlimited	2,640	32,263	3,706	33,329
W-107	Surface	unlimited	29	2,373	41	2,385
W-110	Surface	23,000 MSL	7	298	10	301
W-122	Surface	unlimited	428	14,625	601	14,798
W-386	Surface	unlimited	3,598	9,273	5,512	11,187
W-387	Surface	unlimited	306	1,079	430	1,203
Occasional Use Airspace ²	NA	NA	407	34,725	571	34,889

Notes: 1. Includes other users as well.

2. Echo MOA, Evers MOA, Buckeye MOA, Hatteras B ATCAA, W-132, W-134, W-157, W-158, W-177, MTR VR-1754, Aerial Refueling Track, and Restricted Airspace over Dare County Range represent occasional use airspace.

Occasional use airspace is composed of a number of MOAs, Air Traffic Control Assigned Airspace (ATCAA), Warning Areas, and other airspace units used rarely (less than 5 percent of sortie-operations) by Langley AFB's F-15Cs when primary airspace is unavailable. These occasional use airspace units consist of Echo, Evers, and Buckeye MOAs; Warning Areas 132, 134, 157, 158, and 177; Hatteras B ATCAA; Restricted Airspace over Dare County Range (R-5314); Military Training Route (MTR) VR-1754; and an Aerial Refueling Track. Use of each of these occasional use airspace units varies from year to year. On average, sortie-operations by F-15Cs from Langley AFB are less than one flight per flying day in each occasional use airspace unit. This pattern of use for primary and occasional use airspace would continue with beddown of the F-22s.

By the completion of the beddown in 2007, total annual sortie-operations would increase above baseline levels in all of the primary airspace units due to F-22 activities. The increase in W-386 would be 21 percent (an additional seven daily sortie-operations). For W-72, W-107, W-122, and W-387, sortie-operations would increase 11 percent or less. Only in W-72 would this add more than one (i.e., 4) daily sortie-operation. Use by the F-22s in W-110 would increase by three sortie-operations annually. In the most heavily used airspace units, W-386 and W-72, F-22 sortie-operations would account for 49 and 11 percent of total sortie-operations, respectively. Navy F-18 and F-14 fighter aircraft would remain the dominant users of most of the primary airspace units associated with the Langley AFB proposed action.

Cumulative sortie-operations in occasional use airspace would increase by 164 annually, or less than 0.5 percent. This amount of activity is less than year-to-year variations in use and would not change any baseline conditions.

Like the F-15C aircraft, the F-22 would fly approximately 90-minute-long missions, including takeoff, transit to and from the training airspace, training activities, and landing. Depending upon the distance and type of training activity, the F-22 would spend between 20 to 60 minutes in the training airspace. In the larger Warning Areas (W-72, W-122, and W-386), the duration of sortie-operations would be longer than in the smaller Farmville MOA. On occasion during an exercise, the F-22 may spend up to 90 minutes in one or a set of Warning Areas.

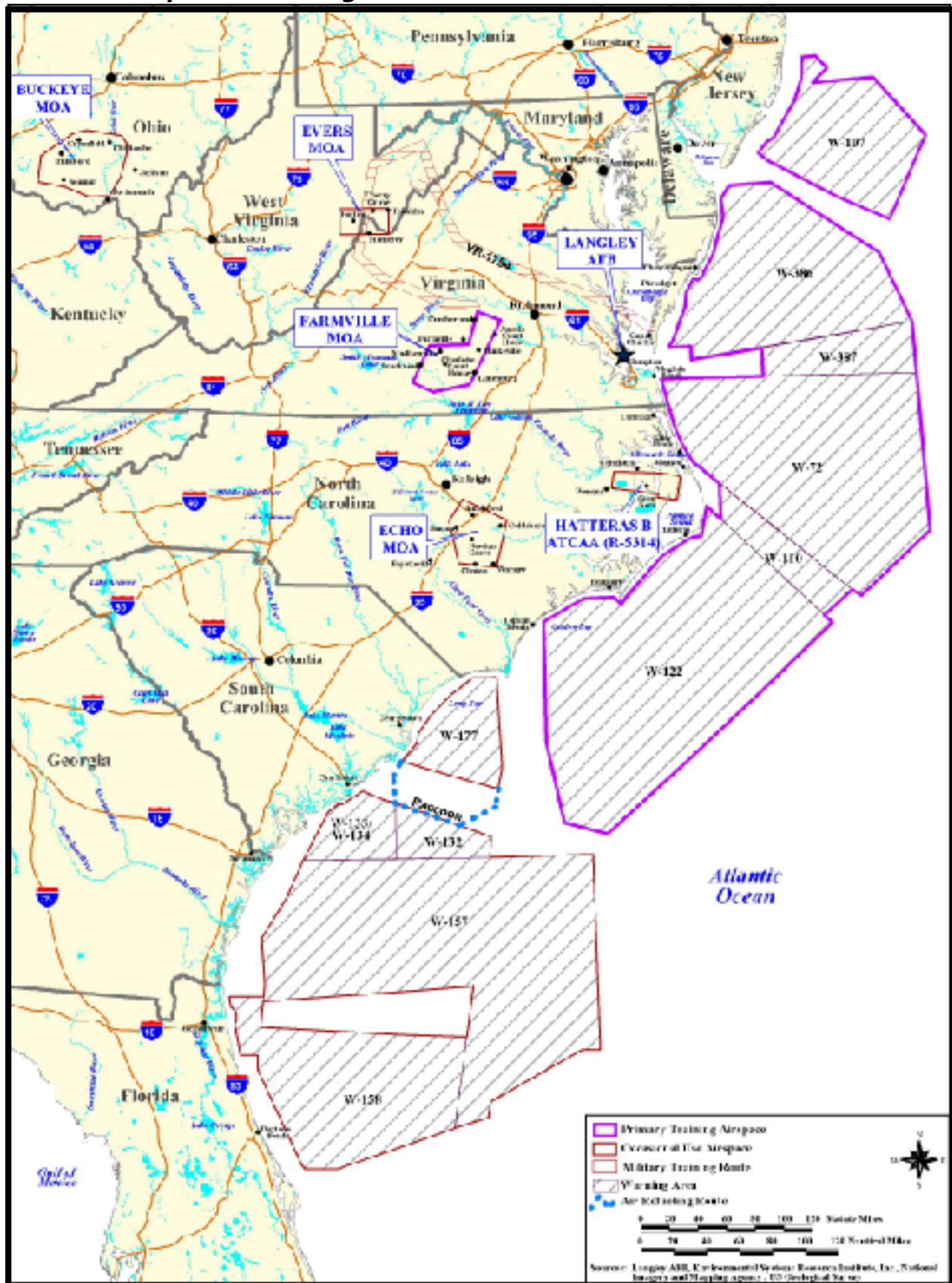


Figure LA2.2-1
Primary and Occasional Use Airspace Associated with Langley AFB

Altitudes are referred to as MSL when flying above water; while flying over land, both MSL and AGL are used to delineate airspace structure.

The Navy manages and controls the major Warning Areas where the F-22 would fly. Although the Navy and Air Force would continue to coordinate scheduling and use of these airspace units, Navy activities have historically been given priority. These Warning Areas can accommodate multiple aircraft during a given period and would provide opportunities for the F-22 to train against mock adversaries in dissimilar aircraft.

The F-22 would fly more of the time at higher altitudes than the F-15C (Table LA2.2-2). In the Warning Areas, the F-22 would operate 95 percent of the time above 5,000 feet mean sea level (MSL), with 30 percent of the flight time above 30,000 feet MSL. Due to the lack of visual cues over water, fighter aircraft rarely engage in air-to-air training below 5,000 feet MSL. In the Farmville MOA, all flight activity would occur below 5,000 feet above ground level (AGL). The F-22 would conduct 317 annual sortie-operations in the Farmville MOA, or 238 fewer than the F-15Cs.

General F-15 and F-22 Altitude Use		
<i>Altitude (feet)</i>	<i>Percent of Flight Hours: F-15C</i>	<i>Percent of Flight Hours: F-22</i>
>30,000 ¹	8%	30%
10,000-30,000	67%	50%
5,000-10,000	14%	15%
2,000-5,000	8%	3.75%
1,000-2,000	2.75%	1%
500-1000	0.25%	0.25%

Note: 1. Operations by F-22s would emphasize use of higher altitudes more often than F-15Cs.

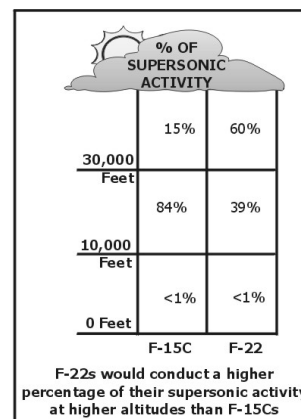
Table LA2.2-2. Baseline and Projected Altitude Use in Primary Airspace Associated with Langley AFB

	PERCENT TIME OF AVERAGE SORTIE-OPERATION (FEET) F-15C/F-22					
	<i>500' - 1,000</i>	<i>1,000 - 5,000</i>	<i>5,000 - 10,000</i>	<i>10,000 - 30,000</i>	<i>> 30,000</i>	
<i>Airspace Unit</i>						<i>Supersonic Authorized</i>
Farmville MOA	12.5/0.25	87.5/99.25	NA	NA	NA	No
W-72	0/0	11/5	14/15	67/50	8/30	Yes
W-107	0/0	11/5	14/15	67/50	8/30	Yes
W-110	0/0	11/5	14/15	75/80	0/0	Yes
W-122	0/0	11/5	14/15	67/50	8/30	Yes
W-386	0/0	11/5	14/15	67/50	8/30	Yes
W-387	0/0	0/0	0/0	92/70	8/30	Yes

Note: 1. F-15Cs and F-22s will not fly below 1,000 feet MSL while over water in Warning Areas per Air Force Instructions and safety requirements.

The F-22 would, on average, fly the same percent of time (30 percent) after dark as the F-15Cs currently using the airspace. Approximately 5 percent of this activity would continue to occur during environmental night (10:00 pm to 7:00 am). Other users of the airspace units, particularly the Warning Areas, fly about 80 percent of the environmental night sortie-operations.

To train with the full capabilities of the aircraft, the F-22 would employ supersonic flight at altitudes and within airspace already authorized for such activities. Supersonic flight during air combat training would be performed in the Warning Areas but not in the MOAs. Due to the F-22's mission and the aircraft's capabilities, the Air Force anticipates that approximately 25 percent of the time spent in air combat training would involve supersonic flight. Most (>99 percent) supersonic flight would be conducted above 10,000 feet MSL, with 60 percent occurring above 30,000 feet MSL. Supersonic flight could occur infrequently (<1 percent) below 10,000 feet MSL in the over-water Warning Areas. In comparison, the F-15Cs commonly conduct supersonic flight about 7.5 percent of the time in air combat maneuvers; such flights are predominantly (84 percent) performed between 10,000 and 30,000 feet MSL. Within the Warning Areas, Navy F-14 and F-18, as well as Air Force F-16 fighter aircraft would continue to conduct training involving supersonic flight. The increased activity by the F-22s is not expected to change the amount of supersonic flight by other users.



Due to its increased capabilities, the F-22 would operate at supersonic speeds more often than the F-15C.

Among the occasional use airspace units, only within the Warning Areas (W-132, W-134, W-157, W-158, and W-177) could F-22s perform supersonic flight. Given the minimal number of F-22 sortie-operations potentially occurring in these airspace units, the increased supersonic activity would be negligible.

LA2.2.2 Defensive Countermeasures

Like the F-15C, the F-22 would employ chaff and flares as defensive countermeasures in training. Chaff and flares are the principal defensive mechanisms dispensed by military aircraft to avoid detection or attack by enemy air defense systems. Because of evolving tactics and mission scenarios, the F-22 is expected to use fewer defensive countermeasures (i.e., chaff and flares) per sortie, due to its stealth characteristics. However, because the F-22 is so new, this reduction in chaff and flare use cannot be defined yet. For the purposes of this analysis, it is estimated that the expenditure of chaff and flares by the F-22s would match that of F-15Cs on a per sortie basis. Chapter 2, section 2.1.2, provides details on the composition and characteristics of chaff and flares.

Chaff and flares would be used in the six primary Warning Areas, but not in the Farmville MOA. Current restrictions prohibit such use in the MOA; no restrictions on the amount or altitude of use apply in the Warning Areas. Under the proposed action at Langley AFB, F-22s would use up to 41,951 bundles of chaff and 22,374 flares per year (in 2007 and after) in the Warning Areas. These levels of use would represent an increase of 4,701 bundles of chaff and 2,501

Annual Chaff and Flare Use		
	Chaff	Flares
F-15C	37,250	19,873
F-22	41,951	22,374
Change	+4,701	+2,501

flares annually over baseline F-15C use. The amount of chaff and flares used in each Warning Area would be proportional to the number of sortie-operations conducted by the F-22s. Based on the emphasis on flight at higher altitudes for the F-22, roughly 80 percent of F-22 chaff and flare releases throughout the Warning Areas would occur above 10,000 feet MSL. At this altitude, chaff would disperse over a very wide area. Most flares would be released more than 14 times higher than the minimum altitude required (700 feet) to ensure complete consumption.

LA2.3 Permits and State Consultation

Langley AFB operates under agreements with a series of environmental permitting agencies for such resources as air, water, and historic resources. The permit to operate Langley AFB in accordance with the provisions of the Commonwealth of Virginia State Air Pollution Control Board Regulation (July 26, 1999) permit (I.D. No. 650-00007; Registration No. 60059) would need to be amended to allow for the proposed construction and modification of facilities related to the F-22 beddown. Normally a base such as Langley AFB would be considered a major source. The permit that Langley AFB holds is known as a Synthetic Minor Operating permit. The base agrees to limit emissions to below 100 tons per year for each criteria pollutant and agrees to institute controls in order to keep within this limit. No initiation of any construction that would create new emissions is allowed before the new permit application is approved. The Virginia Department of Environmental Quality (DEQ) is allowed 90 days to review the permit application. Hazardous air pollutants (HAPs) listed under Title III of the Clean Air Act (CAA) would also need to be addressed in the permit application.

Langley AFB would also amend its Virginia Pollutant Discharge Elimination System (VPDES) permit that limits the concentrations and quantities of pollutants in water. Because the area of construction is over five contiguous acres two permits would be required – a permit to construct and a permit to operate. The application must include proof of proper operation and maintenance of facilities, discharge monitoring, record keeping, and reporting of data to Virginia DEQ. The facility must be open to inspections. Runoff must not create any water quality standards violations. In addition, the Hampton Roads Sanitation District requires a permit for new construction. Langley AFB would be responsible for maintaining compliance with all standards and monitoring requirements in its Hampton Roads Sanitation District Industrial Wastewater Discharge Permit.

Langley AFB also consults with the Virginia Department of Historic Resources for a review of effects to resources on the National Register of Historic Places (or National Register-eligible resources) under Section 106 of the National Historic Preservation Act, for the proposed demolition of hangars and construction of new facilities and structures.

The Air Force may also need to consult with the United States Environmental Protection Agency (USEPA), Region III, and Virginia DEQ regarding proposed construction near Environmental Restoration Program sites on Langley AFB.

LA2.4 Public and Agency Concerns

In order to ensure maximum opportunity for community dialogue, scoping was conducted in two distinct phases. Eighty-seven people attended the Phase-One and Phase-Two scoping meetings for Langley AFB. The Phase-One scoping meeting was held in Hampton, Virginia, on March 30, 2000.

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The Phase-Two scoping meetings were held in Hampton, Virginia (July 17); Manteo, North Carolina (July 18); and Parksley and Farmville, Virginia, on July 19 and 20, respectively. Fifteen written comments were received from the public and agencies prior to close of the scoping period.

During the scoping meetings, people were given the opportunity to ask questions and provide comments on the Initial F-22 Operational Wing beddown proposal. Some of the questions include:

- Is the noise output of the F-22 less than the F-15? (see section LA3.2)
- Why is Langley preferred over the other bases? (see Chapter 2)
- Does the Air Force have an idea of the number of alternatives they'll analyze? (see Chapter 2)
- How many F-22s will the Air Force eventually get? (depends on United States' needs)
- Are you going to let us know the noise abatement and changes in zoning that may occur? (existing abatement procedures; see section LA3.12)
- Will changes to flight patterns result due to basing the F-22 at Langley AFB? (the F-22 will follow the same basic flight tracks of the F-15C; see section LA2.1.2)
- Will F-22 basing require a change in ordnance being flown from Langley AFB? (see Chapter 2, section 2.1.2)
- When will Air Force incorporate actual noise data from a production engine? (best available data used; see section LA3)
- Will there be an increase in night sorties because of the F-22's multi-role capabilities? (see section LA2.1.2)
- What is the manpower requirement for the three F-15 squadrons? (see section LA2.1.4)
- Will this aircraft change the crash-zones from those currently existing? (changes to safety zones are not anticipated; see section LA3.4.1)
- Will fuel be dumped in flight? (the F-22 does not have the ability to dump fuel; see section LA3.4.1)
- Will there be fewer staff on hand to maintain the F-22 compared to the F-15? (see section LA2.1.4)
- Will the EIS project the number of sorties for the F-22 compared to the F-15? (see section LA2)
- How much revenue will the F-22 generate in the Hampton/Newport News area? (see section LA3.13)

- Who will make the decision and do the local communities have any say in this? (one way local communities provide input to the Air Force decisionmaker is by providing comments during the environmental process; refer to the Preface)