

TY4 CUMULATIVE EFFECTS, IRREVERSIBLE, AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Cumulative Impacts

CEQ regulations stipulate that the cumulative effects analysis within an EIS should consider the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7). Recent CEQ guidance in *Considering Cumulative Effects* affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with the proposed action. The scope must consider other projects that coincide with the location and timetable of this alternative. It must also evaluate the nature of interactions among these actions.

In this section, an effort has been made to identify past and present actions at Tyndall AFB and associated training airspace that are in the planning phase at this time. Only those foreseeable actions with a potential to interact with the Tyndall AFB alternative are addressed in this cumulative analysis. Although the level of available detail regarding such proposals varies, this approach provides the decisionmakers with the most current information to evaluate the environmental consequences of the Initial F-22 Operational Wing beddown and training operations in associated airspace at Tyndall AFB.

As an active military installation, Tyndall AFB undergoes changes in mission and training requirements. As the Air Force’s advanced fighter pilot training school, Tyndall’s mission evolves with the introduction of new aircraft. Like any other major institution, Tyndall AFB requires new construction, facility improvements, infrastructure upgrades, maintenance, and repairs on an ongoing basis. These actions would continue during and after the Initial F-22 Operational Wing beddown. These other actions would receive appropriate environmental analysis should they be undertaken.



Tyndall's new control tower is an example of facility improvements and upgrades that continue to occur on an active military installation.

Past and Present Actions Relevant to the Tyndall AFB Alternative

Tyndall AFB’s 325 FW mission is to train advanced fighter pilots in the newest equipment. With the introduction of the F-22 into the Air Force inventory, pilots need to be trained. In the fall of 2000, the Air Force issued a Record of Decision (Air Force 2000a) announcing the conversion of two F-15C fighter training squadrons to two F-22 fighter training squadrons. The purpose of this action is to train pilots to fly the F-22. By the year 2011, the two F-15C training squadrons will be converted to training F-22s with an overall increase in missions of 7 percent. This increase, with the full complement of two squadrons of F-22 training aircraft and one squadron of F-15Cs, comprises the baseline used for the Initial F-22 Operational Wing beddown.

The Air Force recently completed an evaluation of the environmental consequences of expanding the boundaries of warning area W-470. The expansion encompassed the existing NOVA 1 and NOVA 2 areas to the east. Both NOVA areas consist of ATCAA with floors starting at 18,000 feet MSL. This expansion provided additional airspace for effective testing and training operations and no significant environmental consequences were identified (Air Force 1999b).

In 2000, the Air Force received approval for chaff and flare use by the 325 FW during training maneuvers over the Compass Lake and Carrabelle Work Areas. These airspaces units are contained within the Tyndall MOAs and would be used by the Initial F-22 Operational Wing of aircraft for training, if Tyndall AFB were chosen as the beddown location.

Reasonably Foreseeable Actions

The United States Navy (Navy) is introducing the F/A-18E/F fighter aircraft to the Atlantic Fleet. The Navy has started an EIS to evaluate various alternatives for siting these aircraft. Four bases are currently being considered as possible home bases for the new aircraft: Naval Air Station (NAS) Meridian, Mississippi; Marine Corps Air Station (MCAS) Beaufort, South Carolina; MCAS Cherry Point, North Carolina; and NAS Oceana, Virginia. The Navy is planning to transition in 60 F/A-18E, 70 F/A-18F, and 34 F/A-18E/F FRS for a total of 164 aircraft over a 6-year period starting in 2004. Total personnel associated with the aircraft are 523 officers and 2,808 enlisted. These aircraft would replace older F/A-18 and F-14 aircraft. NAS Meridian (Mississippi) would be the nearest potential beddown location for these aircraft to Tyndall AFB. Since the process to evaluate this set of actions has just begun, details of the alternatives and how they might interact with this alternative remain imprecise.

Plans are underway to relocate the existing Panama City-Bay County International Airport to a new location near the town of Ebro (north and west of Tyndall AFB). Current plans call for the development of a single 6,800-foot runway on a 4,000-acre parcel. A site north of Bay County Highway 388 and east of U.S. 79 has been selected. Construction costs are estimated to be 206 million, with a tentative construction schedule for the 2004-2007 timeframe (personal communication, Cone 2001).

The Air Force, in conjunction with the FAA, is proposing to develop two commercial jet routes and expand the Special Use Airspace over the Gulf of Mexico. To enhance civilian aviation efficiency, the FAA proposes two new routes, which better distribute the current and growing amount of commercial traffic that is currently handled by a single route (J-58/56). The Air Force proposes expanding the ATCAAs over W-155, W-151, W-470, and W-453 to the south by 5 to 12 miles and reducing the northern and eastern boundaries of W-168 to accommodate commercial traffic headed to Miami, Florida. An adjustment would be made to the southern and western boundaries of W-168 to compensate for the noted reduction.

Analysis of Cumulative Effects

The following analysis examines how the impacts of these actions might be affected by those resulting from the Initial F-22 Operational Wing beddown at Tyndall AFB, and whether a relationship would result in potentially significant impacts not identified when this basing alternative is considered alone.

Initial F-22 Operational Wing Beddown Draft EIS

As analyzed in previous environmental documentation, implementation of the F-22 training program at Tyndall AFB, the airspace realignment of W-470, and chaff and flare use at the Compass Lake and Carrabelle Work Areas did not result in any significant environmental consequences (Air Force 1999, 2000). Implementation of these actions is reflected in the affected environment/no-action sections of this Draft EIS. For example, the sortie-operations resulting from the F-15C to F-22 conversion in the airspace proposed for use by the Initial F-22 Operational Wing are captured and analyzed under the affected environment, then integrated into the proposed Initial F-22 Operational Wing beddown. This approach applied to all relevant resource categories, so analysis of impacts presented in section TY3 also includes the cumulative effects of these past and present actions.

The planning and development of a new airport for Panama City-Bay County is being conducted in close coordination with the FAA and airspace managers from Eglin and Tyndall AFBs. No current air traffic control conflicts exist between the existing airport and Tyndall AFB; coordination with the FAA would ensure none results from relocating the airport.

The tentative construction schedule for the new airport indicates that it would begin in 2004 and continue through 2007. If this schedule is sequential to F-22 facilities construction, more construction workers and service-related employees are likely to permanently relocate. This could increase long-term demand of housing and services.

With a decision regarding basing the Navy's F/A-18E/F aircraft more than two years away, precise evaluation of this action's impacts or their cumulative effects is not achievable. If the Navy decides to base them at NAS, Meridian, interaction with the proposed F-22 beddown would occur in the training airspace. Navy sortie-operations in these Warning Areas would likely increase in direct correlation to the increase in aircraft. Not much overall change to conditions would likely occur, particularly with regard to noise. Assuming similar operational patterns as the F/A-18s, the additional F/A-18E/F sortie-operations would probably yield an increase in noise of 1 dB or less. Even combined with the potential operational F-22 activity, noise levels in these Warning Areas would likely remain below 45 DNL.

If the Navy decides to base the F/A-18E/Fs at one of the other three alternative locations, sortie-operations in the shared Warning Areas would probably decrease. Cumulative noise levels and other related effects would, in response, be imperceptibly reduced.

The expansion of Warning Areas in the Gulf of Mexico and the other airspace adjustments would provide additional training space to accommodate additional training sorties and long-range weapons systems setups. While no environmental analysis of this proposal has been completed, it is anticipated that environmental conditions in the expanded airspace would be similar to those currently experienced in the offshore Warning Areas. If the Initial F-22 Operational Wing were based at Tyndall AFB, conditions in the expanded airspace would be very similar to those forecast for the existing Warning Areas, though they would occur over a larger area.

Irreversible and Irretrievable Commitment of Resources

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Irreversible

effects result primarily from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action.

For Tyndall AFB, most resource commitments are neither irreversible nor irretrievable. Most impacts are short-term and temporary, such as air emissions from construction, or longer lasting, but negligible (e.g., noise increases). Those limited resources that may involve a possible irreversible or irretrievable commitment under this proposed alternative are discussed below.

If Tyndall AFB were the chosen alternative, construction and renovation of base facilities on an existing developed area would disturb 73 acres. This action has the potential to require wetlands mitigation. Consumption of limited amounts of material would also be associated with interior renovations (wiring, insulation, windows, drywall) and exterior construction (concrete, steel, sand, brick). An undetermined amount of energy to conduct renovation, construction, and operation of these facilities would be expended and irreversibly lost.

Training operations would continue and involve consumption of nonrenewable resources, such as gasoline used in vehicles and jet fuel used in aircraft. Use of training ordnance would involve commitment of chaff and flares. None of these activities would be expected to significantly decrease the availability of minerals or petroleum resources. Personal vehicle use by the personnel continuing to support the existing missions would consume fuel, oil, and lubricants. The amount of these materials used would increase slightly; however, this additional use is not expected to significantly decrease the availability of the resources.