Operational Impact Assessment

The Navy needs to effectively and efficiently increase its electronic attack capabilities to counter increasingly sophisticated threats and provide more Growler aircraft per squadron in order to provide Combatant Commanders with the assets necessary to meet our national defense requirements. To meet operational requirements, the Navy needs to augment Growler squadron VAQ-139 with additional aircraft and aircrews by July 2019.

The Navy's proposed action continues and expands existing Growler operations at the NAS Whidbey Island Complex, which includes field carrier landing practice (FCLP) by Growler aircraft at Ault Field and Outlying Landing Field (OLF) Coupeville. The proposed action also calls for an increase in electronic attack capabilities by adding 35 or 36 aircraft to support an expanded Department of Defense mission for identifying, tracking, and targeting in a complex electronic warfare environment. Under the preferred alternative, the squadron size will increase from 5 to 7 aircraft and from 9 to 13 aircrews (EA 18-G pilots and Naval Flight Officers (NFO)) in each aircraft carrier squadron, as well as two new expeditionary squadrons for a total of 628 officer and enlisted new assigned personnel among all the squadrons. At Ault Field, construction and renovation of facilities are required to house and maintain additional Growler aircraft. Stationing of additional personnel and their families is also expected. Due to the complexity of the proposed action, any delay in augmenting operational squadrons, training aircrews and maintenance personnel or providing temporary or permanent facilities for aircraft and personnel has a cascading impact on the operational effectiveness and efficiency of the Electronic Attack community.

I. Electronic Attack Capability Plays a Key Role in National Defense

The mission and tactical actions of the Navy's Growler aircraft are crucial to the effectiveness of U.S. and allied missions both in the air and on the ground. Growlers are used to suppress enemy air defenses and communications systems by denying the enemy freedom of action in the electromagnetic spectrum. Growlers are used to escort other U.S. and allied strike aircraft in missions against heavily defended targets, enabling strike aircraft to penetrate air defenses and deliver ordnance against assigned targets. Additionally, Navy Growlers disrupt land-based threats in order to protect the lives of U.S. ground forces by disrupting enemy communications and radio controlled improvised explosive devices (IEDs) use through electronic measures.

In 2009, the Secretary of Defense directed the Navy to take responsibility for the nation's tactical Airborne Electronic Attack mission. As a result, the Navy is the only U.S. military service that currently maintains a tactical airborne electronic attack capability and is required to preserve and cultivate the expertise and knowledge of the Growler community. The Navy's master aviation plan calls for the increase from 5 to 7 aircraft and the increase from 9 to 13 aircrews in carrier air wings in order to meet combatant commander requirements. Combatant Commanders strive for air dominance in warfare. This has traditionally been achieved by dominating the battlespace with friendly air forces capable of clearing a path, defending an area or interdicting an adversary's flight profile. However, today's adversaries are more advanced, which in turn increases the volume of airspace to monitor and potentially control. The integration of other naval aircraft such as the EA-18G Growler greatly expands the area of control available to fighter aircraft.

The Navy's Airborne Electronic Attack community is organized into three types of squadrons: carrier air wing squadrons, which fly missions from aircraft carriers; expeditionary squadrons, which are forward deployed from overseas airfields; and a Fleet Replacement Squadron (FRS), which does not deploy but provides post-graduate training to pilots prior to transferring into carrier or expeditionary squadrons. The operational force structure for the Electronic Attack community consists of carrier-based squadrons, expeditionary (or land-based) squadrons, one reserve unit and a training squadron (also known as Fleet

Replacement Squadron or VAQ-129), totaling 88 aircraft and 3,700 personnel stationed at NAS Whidbey Island. The Growler remains a critical "Low Density/High Demand" aircraft, meaning Growler forces possess unique capabilities that are in continual high demand to support U.S. and joint military operations. These assets are highly sought by Combatant Commanders worldwide and, frequently, a required asset for mission success. The men and women maintaining and flying the EA-18G "Growler" aircraft are deployed from NAS Whidbey Island around the world, providing the world's premier electronic attack capability to each aircraft carrier in the United States Navy and to land-based sites such as Iwakuni, Japan; Aviano, Italy; Incirlik, Turkey; Saudi Arabia; Baghram, Afghanistan and Al Asad, Iraq. EA-18G squadrons have contributed to the United States global strategy and electronic attack mission for Operations ENDURING FREEDOM, IRAQI FREEDOM, and INHERENT RESOLVE and will continue to do so into the foreseeable future. The EA-18G's ability to operate from either an aircraft carrier or from land bases make it a strategic asset and a critically important weapons system in high demand around the world. Having 7 aircraft and accompanying 13 aircrews in aircraft carrier squadrons will increase the effectiveness of the Growler against advanced adversaries. Because the Electronic Attack community is relatively small and the Growler aircraft is in high demand to support every U.S. and allied mission in the air and on the ground, a level of operational risk is incurred if the squadrons are not augmented with additional aircraft and aircrews to meet our Title 10 responsibilities.

The following explains the projected schedule of execution of components of the proposed action and why continued delay of certain actions will have cascading effects impacting critical national defense missions and military readiness activities of the Navy's Airborne Electronic Attack community.

II. Facility and Infrastructure Requirements

A delay in signing a ROD beyond January 2019 has significant impacts on the Navy's ability to complete critical infrastructure projects to support expanded Growler actions. Regardless of which action alternative is ultimately selected, there are facility and infrastructure requirements including new construction, renovation and modifications that must be completed to support the basing of additional Growler aircraft and personnel at NAS Whidbey Island. New construction under all alternatives would include additional armament storage, additional aircraft parking apron adjacent to hangars, new and expanded hangar maintenance facilities, a Mobile Maintenance Facility storage area, and expanded personnel parking areas to augment existing Growler support facilities. Because the new facilities will not be in place to support the immediate growth of the Growler community, the proposed action requires extraordinary measures by our sailors to support daily operations without the benefit of permanent facilities and may require temporary hangar facilities to support squadron functions until permanent facilities are constructed and available for occupancy. Because of the time required to complete permanent facilities, further delays in beginning construction will lead to the number of additional aircraft and personnel outpacing the ability to support them with temporary facilities. All planned construction activities would occur on the north end of the flight line at Ault Field. New parking areas, maintenance facilities, and aircraft armament storage would be constructed along Enterprise Road at the north end of Charles Porter Road.

Upon ROD signature, facilities engineers will award contracts for particular projects in accordance with the Competition in Contracting Act (CICA), Federal Acquisition Regulation (FAR), and Department of Defense and Navy supplements to the FAR. Detailed scopes of work and issuances of requests for proposals (RFP) have been prepared but review and rank of company bid packages and selection of one company's bid package for contract award still must occur. Once awarded, contract execution is managed to keep the contracts on schedule and ensure project requirements are met.

For the Growler facilities projects, the Navy will award Design-Build contracts in which the selected company is contracted to provide both the architectural/engineering design services to meet the

performance standards set forth in the contract as well as to schedule, manage and erect the facilities for project completion. If the contract is awarded in January 2019, a detailed facility design is expected by September 2019, at which time civil engineering work would begin to prepare the construction site for erecting the needed facilities. Therefore, actual construction would not begin until about 9-10 months after contract award. As there will be aircraft and personnel arriving at the same time, it is important that projects be designed, phases of the construction project synchronized, construction laydown areas prepared, temporary facilities erected and new construction initiated as rapidly as possible. The new, permanent facilities are expected to be complete and ready for occupancy no earlier than June 2021. As with any large scale construction project, design changes, cost overruns or unexpected problems may necessitate further time delays to re-negotiate contract changes. Re-negotiated changes may include cutting the scope of the design and/or acquiring Congressional approval for addressing increased costs.

The first significant project is a military construction project known as P-256, an EA18-G Growler maintenance hangar to be constructed at Ault Field. The project was funded in Fiscal Year 2017 through Public Law 114-223 enacted on September 29, 2016, and therefore the project may only obligate funds as available until September 30, 2021. The Navy announced an RFP for a design-build contract in March 2017. Currently, several companies have submitted bid packages and those cost bid proposals are set to expire on February 4, 2019. However, if bid costs go up either during this selection process or if any additional delays requiring further extensions, then the Navy will be at high risk of exceeding available funding, which would create a 6-9 month delay to secure additional necessary funding. For example, a jump in fuel prices could substantially increase the cost of construction, or there could be transportation and material costs necessitating a re-negotiation of the contract and/or possible re-programming action to address the shortage in available funding.

The existing hangar capacity at the installation cannot provide sufficient operational hangar space for long-term operations of 36 additional aircraft. The existing three hangar facilities, which have adequate power, Sensitive Compartmented Information Facility (SCIF) administration space and Flight Line Electrical Distribution System (FLEDS) to accommodate the EA-18G platform, are currently supporting nine fleet carrier squadrons and three expeditionary squadrons and lack the space necessary to support any additional aircraft.

Operational hangar space is required to provide a weather-protected shelter for inspection, servicing, maintenance, and emergency shelter for increased personnel and equipment associated with 36 additional aircraft. Temporary hangar facilities are required until construction is complete. Current hangar capacity will be exceeded in the 2020 timeframe due to the Growler community growth. As each carrier squadron is augmented with additional aircraft, equipment and personnel and/or a new expeditionary squadron is established, it will be necessary to continuously move one squadron into the hangar space vacated by another squadron going on deployment. This continuous relocation is called “hot racking” and it will continue until the new hangar and other facility spaces may be occupied. Hot racking is very disruptive to normal maintenance and repair actions of the aircraft as well as logistics and supply operations of the squadron, negatively affecting squadron-level efficiency and overall operational readiness.

Existing hangar capacity at the installation cannot provide sufficient operational hangar space for long-term operations of the expanding Growler force structure (more squadrons and aircraft) that will result from this action. The existing three hangar facilities are currently supporting existing squadrons and lack the space necessary to support any additional aircraft. With demolition of Hangar 1 (currently underway), the Electronic Attack Wing is already short hangar space for all squadrons. Hangar 1 had been used for the maintenance operations of the FRS, the training squadron’s which have now been displaced into Hangar 5 where they are operating out of spaces previously reserved for operational squadrons. This requires hot-racking of multiple squadrons, meaning personnel flow into and out of different spaces within the hangar based on which squadrons are deployed at any given time. Additionally, when carrier

squadrons start to experience increased aircraft and manning as they increase from 5 to 7 EA-18G Growlers, this will exacerbate the current space shortage even further and likely require displacement of some personnel outside of their squadron spaces until new hangar footprint can be built to absorb the increased requirement. This reduced efficiency will increase the time and manpower required for routine maintenance and inspections putting at risk the ability to execute the daily flight schedule required to train and prepare squadrons for deployment.

Without improvements to include the P-256 hangar project, the additional aircraft will not be able to be supported long-term at the installation. Inadequate SCIF and hangar spaces would compromise aircrew mission data and maintenance operations, respectively, to support the additional squadrons and new aircraft. The Electronic Attack Wing mission would be extremely constrained without an additional hangar facility. Without apron power distribution systems, the new platform would be restricted to either inefficient use of limited ground support equipment or unnecessary wear and tear upon aircraft electronic components.

A continued delay will also have impacts on construction projects that support the FRS. Under the proposed action, the FRS will increase in number of aircraft from 17 aircraft to 25 in order to meet the increased training demands for development of additional EA-18 pilots and NFOs. Another project, P-263, is currently listed as an FY2021 military construction project to meet this requirement. However, due to reconstruction within the existing FRS Hangar (Hangar 12) that will occur during this P-263 project and job site overlap, the hangar to be constructed under P-256 must be completed before P-263 can begin to support FRS operational continuity. Therefore, delays to P-256 are likely to create a corresponding slip in the execution of P-263.

Any delay in signing the ROD and awarding the construction contract increases the risk that further interruptions in work would cause significant delay. Even a short suspension of work of two weeks or less could result in significantly more than a day per day delay, particularly if ultimate duration of the delay is unknown. This is because it will be necessary for the contractor to demobilize and then remobilize after a suspension. Contractors often lose employees or prospective employees during a suspension and it may take considerable time to obtain replacements, particularly if labor market conditions are poor for finding a highly skilled labor force. For example, crane operators and heavy equipment specialists are more likely to reside in highly urbanize parts of the country, where multiple large-scale construction projects are on-going. Likewise, there may be a delay in obtaining and transporting cranes and other heavy equipment to Whidbey Island. If cranes and heavy equipment are being leased, returned or canceled, replacement equipment may not be readily available.

Impacts of significant suspension of work in excess of a few weeks could vary considerably based not only on the expected duration of the contract suspension but also on where the contractor is in the mobilization process; however, in most cases where there is a significant period of suspension, delays will be extensive because contractor demobilization would likely be required and could result in months of delay for remobilization.

If contract termination is required for a major construction project due to a long or indefinite suspension, project delays would likely approach two years after the requirement for delay ends, since it would be necessary to re-compete the project under CICA. The scope of work for a project must generally be modified in order to prevent undue prejudice to the prior awardee and this may take several months. Prior to re-advertising a project, it is usually necessary to repackage the procurement to avoid a potentially successful protest since bid information by the winning company will be disclosed to competitors. Completion of the acquisition process once an RPF is issued normally takes 12 to 15 months for a large complex construction project, and following this several months are normally required for full contract

mobilization. Even for smaller, less complex construction projects reacquisition and remobilization in relatively rural area, could take several months.

Figure 2.3-1
Ault Field
Planned Facility Activities under Alternatives 1, 2, and 3
Whidbey Island, Island County, WA

III. Training and Operational impacts

A delay beyond January 2019 has significant impacts on naval aviation's ability to stay on schedule delivering the unique warfighting "capability-capacity" that the EA-18G provides, because it will delay the increase in size (number of aircraft and aircrew) of Carrier Air Wing Growler squadrons and require the Navy to assume operational risk in fulfilling its Title 10 responsibilities beyond July 2019. In order to increase the size of these squadrons, the Navy must increase training production of the EA-18G through the FRS, which provides post-graduate training for new EA-18G pilots and NFOs assigned to carrier and expeditionary squadrons described above. The only Growler FRS in the United States is at Ault Field. Because the FRS training syllabus for new pilots and Naval Flight Officers (NFO) consisting of academics, simulator and flight training (FCLPs) is approximately 43 weeks long for Category 1 EA-18G pilots and NFOs, the induction of additional pilots and NFOs to meet training production requirements for the first squadron must begin in January and continue a steady increase ahead of the growth in the actual Growler force.

Every EA-18G pilot and NFO goes through FRS training before assignment to an expeditionary or carrier assigned squadron. This training occurs for both beginner Category 1 aircrews, those transitioning from other aircraft to Growlers (Category 2 aircrews) and for those returning to deployable squadrons needing refresher training (Category 3 aircrews). There is a constant cycle of training these aircrews and then assigning them to squadron billets. Personnel receive three year orders to a unit. Therefore, in any given year, one third of the unit's personnel (to include both aircrews and maintenance crew) will be rotating out of the command and new personnel will be arriving. The FRS has been anticipating added aircrew throughput to support the one-third constant replenishment while managing the anticipated growth to meet increased demand in July 2019, gradually growing training throughput from 36 aircrews per year to 46 aircrews by FY2022. Delays to allowing increased FCLPs and ability to put increased aircrews through the FRS training will create a shortage of trained aircrews immediately. In other words, without the authority to increase FCLP training at the FRS in January 2019, the Navy cannot train enough EA-18G pilots and NFOs in time to assign to the augmented carrier air wings under the proposed action.

On-time transition of personnel and aircraft to specific squadrons based at NAS Whidbey Island is also vital to ensure that perishable skills are maintained. Additional developed and trained aircrews must be assigned to the first squadron by July 2019 in order for the squadron to start executing the Optimized Fleet Response Plan (OFRP). The OFRP includes a training cycle consisting of unit basic level training by the squadron, which predominately occurs at NAS Whidbey Island and involves FCLPs, and then follow-on intermediate level training with other forces before a planned deployment (12-18 months later) and follow-on sustainment phase. Guidance doctrine calls for a full 3-year (36 month) OFRP cycle for these aviation units, which begins and ends with a maintenance period as well. Delays to increasing the number of FCLPs conducted at NAS Whidbey Island for the larger number of aircrews through the FRS training will create an immediate shortage of trained aircrews and hinder a squadron's development through the OFRP. Under the preferred alternative, it is anticipated that 2 new expeditionary squadrons (10 new aircraft), 2 additional aircraft to each existing carrier squadron (18 new aircraft), and 8 new training aircraft are to go to the FRS. Depending on the selected alternative, the Navy intends to increase sailors, both enlisted and officer, in the squadrons by no less than 335 and up to 628 sailors. Upon ROD signature, VAQ-139, a Growler squadron assigned to Carrier Air Wing Seventeen, is planned to augment or "plus up" to the additional level of 13 total crew and 7 aircraft first by July 2019. In order for this to occur, aircrews and maintainers have to complete training and be available for assignment to augment Growler squadrons according to the transition plan; otherwise, they will be assigned to backfill vacancies in other squadrons, which further exacerbates providing the Combatant Commanders with augmented squadrons.

If aircrew and maintenance personnel do not arrive to train in and to maintain the new aircraft, the Navy is restricted to status quo levels of flight operations and it will not be able to increase production in order to meet the carrier wing squadron growth plans. Depending on how long it takes to bring these individuals to NAS Whidbey Island, the ability of the electronic attack warfare community to transition to the larger, more capable squadrons Navy will be delayed a year or more.

IV. Personnel Impacts

Navy personnel inventory management requires lead time in which detailers are planning military personnel moves 6-12 months in advance, before orders are cut for new duty assignments. Therefore, an extended delay in the ROD will impact current plans for future personnel moves which in turn destabilizes family life, negatively affects career progression, and may lead to shortages in retaining qualified military members career fields in high demand for similar expertise in private industry.