



DEPARTMENT OF THE NAVY
COMMANDER ELECTRONIC ATTACK WING
U.S. PACIFIC FLEET
3760 N CHARLES PORTER AVENUE
OAK HARBOR WASHINGTON 98278

IN REPLY REFER TO

COMVAQWINGPACINST 3710.4

N3

8 Mar 24

COMVAQWINGPAC INSTRUCTION 3710.4

From: Commander, Electronic Attack Wing, U.S. Pacific Fleet

Subj: U.S. NAVY GROWLER AIRSHOW TEAM STANDARD OPERATING
PROCEDURES

Ref: (a) OPNAVINST 3710.7V
(b) U.S. DOT Notice 8900.526
(c) Federal Aviation Regulations, Part 91
(d) CHINFO WASHINGTON DC Applicable Year Document
(e) CNATRANOTE 3700.1
(f) FAA Form 7711-1
(g) FAA Form 7711-2
(h) COMNAVAIRFORINST 5510.18

Encl: (1) Growler Airshow Team Airshow Flight Profile (AFP) Maneuver Descriptions
(2) Growler Airshow Team Pilot Training Requirement
(3) Growler Airshow Team Simulator and Flight Syllabi
(4) Growler Airshow Team Example Kneeboard Card
(5) Growler Airshow Team Aircrew Designation Letter
(6) 2024 Growler Airshow Team Support Manual

1. Purpose. Per references (a) through (h), utilizing enclosures (1) through (6), this instruction is provided to publish policy and procedures for the conduct of Commander, Electronic Attack Wing, U.S. Pacific Fleet (CVWP) participation in the U.S. Navy Growler Airshow Team and U.S. Navy Legacy Flight.

2. Scope and Applicability. This instruction is applicable to all Electronic Attack squadrons under CVWP.

3. Discussion. The Growler Airshow Team AFP, when conducted in a safe and professional manner, projects a favorable image of Naval Air Power to the civilian community, other military services, and members of the Naval establishment. As the sole tactical jamming platform in the U.S. Navy and Marine Corps inventory, the EA-18G generates high interest and is an effective platform for projecting positive outreach for the Department of Defense. In addition, AFPs provide insight into the unique capabilities of the EA-18G as a multi-mission, tactical, carrier-based aircraft. The AFP will be performed inside a Federal Aviation Administration (FAA) approved Temporary Flight Restriction (TFR) area in compliance with FAA regulations and remaining outside of a Category III (CAT III) 500-foot crowd line and applicable corner markers. The AFP contains a series of

flybys information with no aerobatic maneuvers as defined and graphically depicted in reference (b). Enclosure (1) is the AFP flight and maneuver descriptions. Enclosure (2) contains guidance and procedures for the safe and effective training of Growler Airshow Team Candidate Pilots and Electronic Warfare Officers (EWOs). Enclosure (3) contains the sequence of simulator and flight training for Growler Airshow Team Candidate Pilots and EWOs. Enclosure (4) is a sample AFP kneeboard card. Enclosure (5) is the CVWP aircrew designation letter. Enclosure (6) is the 2024 Growler Airshow Team Airshow Support Manual. For brevity and clarity, Wing refers to CVWP, Fleet Replacement Squadron (FRS) refers to Electronic Attack Squadron 129 (VAQ-129) and Aircrew(s) refers to Pilots and EWOs.

4. Growler Airshow Team Schedule and Requests. Each year, the U.S. Navy Office of Information and the Navy Office of Community Outreach will publish a list of airshows requesting United States Navy Demonstration Squadron (Blue Angels) or Legacy support or both. These support requests will be submitted via DD Form 2535, and will include FAA flight waivers, runway and facility information, attendance expected, force protection information, and a primary contact. The Growler Airshow Team will be responsible for soliciting desired shows for the following calendar year. Each FRS Airshow Team will attempt deconfliction from other like Type, Model, and/or Series (TMS) airshow teams. Additionally, FA-18E/F and EA-18G FRS teams should attempt to deconflict with the Blue Angels show schedule, with the exception of team member's hometown shows. Overlap of like TMS aircraft at any show will be granted on a case-by-case basis by Commander, Naval Air Forces (COMNAVAIRFOR). Every effort should be made to deconflict Growler Airshow Team requirements from the FRS production requirements. These include, but not limited to, carrier qualifications and training detachment support. Once a tentative Growler Airshow Team show schedule is built, it will be approved by the Operations Officer, the VAQ-129 Commanding Officer (CO) and CVWP. This tentative schedule will then be routed to the COMNAVAIRFOR staff member in charge of Airshow support.

5. Actions and responsibilities

a. FRS Operations

(1) The VAQ-129 Operations officer will give the Growler Airshow Team Lead scheduled detachments in December for the following year.

(2) When tasked by Type Commander to support an aerial event, the FRS will provide aircraft and qualified aircrew in support of the tasking.

(3) The CVWP Chief Staff Officer will coordinate an interview with the Type Wing Commander when new Growler Airshow Team aircrew are qualified. This interview will occur prior to the first airshow in order to discuss the Commodore's expectations.

(4) The VAQ-129 Operations Officer should send three aircraft (two performing and a spare) when possible to each show.

b. Public Affairs

(1) Each scheduled air show will have an assigned representative from the Growler Airshow Team to coordinate public affairs. This representative will be the sole point of contact between the air show publicity coordinator and the Growler Airshow Team and will handle any questions the air show publicity coordinator may have about coordination of Growler Airshow Team media. Air show publicity coordinators will receive an introductory e-mail from their Growler Airshow Team representative no later than three months prior to their show.

(2) Preparations and arrangements for pre-show publicity (TV interviews, radio interviews, public speaking engagements, advertising, public appearances, etc.) should be discussed with the Growler Airshow Team show representative at least 30 days prior to the scheduled air show.

c. FRS CO

(1) Nominate, train, and certify a minimum of three (maximum of four) Growler Airshow crews. These nominations should occur prior to one month remaining in the current air show season to allow candidate aircrews the opportunity to "shadow" current team members at airshow sites.

(2) Designate the Growler Airshow Team Lead in writing. Every effort should be made to ensure that the Team Lead has shadowed a minimum of two airshow events in the preceding season.

d. FRS AFP Team Lead

(1) Ensure all Team candidates and aircrew satisfy the minimum syllabus requirements and become proficient in the AFP as described and illustrated in enclosures (1) through (4). Ensure participants receive additional practice as necessary to remain proficient or prepared for a unique show site.

(2) Ensure the Team is aware that any comments made to the media or general population may be interpreted as being representative of the policies and programs of the U.S. Navy. Controversial matters will be avoided. Classified information will not be discussed.

(3) Place safety as the foremost consideration throughout the AFP. A thorough Foreign Object Damage (FOD) walk down and inspection of the aircraft, including diving the ducts, will be conducted prior to engine start. This is especially important when launching static display aircraft. Pay special attention to crowd safety in the vicinity of the aircraft with regard to jet blast and noise hazards. If FOD or crowd considerations dictate, the aircraft will be towed to the end of the runway or nearby taxiway prior to start.

(4) Provide an appropriate soundtrack to the Growler Airshow Team aircrew for presentation during the AFP.

(5) Attend annual International Council of Airshows convention with the on-coming Growler Airshow Team Lead. This will allow for the attendance of airshow classes and forums, in person solicitation for the upcoming airshow season, deconfliction with other FRS airshow teams, and valuable turnover with the on-coming Team Lead.

(6) Work with the VAQ-129 Operations Officer for show and detachment deconfliction.

e. Airshow Safety Observer

(1) Will be an FRS Instructor Pilot (IP) or Instructor EWO (IEWO) familiar with the AFP.

(2) Brief with the AFP aircrew prior to walk.

(3) Ensure appropriate emergency services are on station during the AFP.

(4) Be present at show center for the duration of the AFP with good two-way communication.

(5) Ensure minimum weather criteria is met for the AFP.

(6) Debrief with the AFP aircrew post-flight.

f. Growler Airshow Team Aircrew

(1) Satisfy the minimum practice requirements and become proficient in the AFP as described in enclosures (1) through (4). Additional simulator practice may be required and is expected for proficiency or unique show requirements.

(2) Obtain coordinates, diagrams, or photos of the respective airshow site. Coordinate with local FAA representatives to obtain a copy of all FAA waivers. CVWP minimums will be adhered to, even if the FAA waivers and minimums are less restrictive.

(3) Plan Growler Airshow Team arrival at the airfield site during daylight hours to permit familiarity with geographical landmarks and the airshow maneuvering box. If team arrival at night or under Instrument Meteorological Conditions (IMC), a familiarization flight or practice performance should be flown prior to performing before a crowd.

(4) Prepare a narrative tailored to the specific airshow site, AFP aircrew, and maintenance crew, containing the minimum information listed below:

(a) General description, capabilities, mission of the EA-18G, focusing on airborne electronic attack.

(b) Pilot and EWO names, hometowns, squadron name, and home base. Enlisted maintenance crew members' names and hometowns.

(c) A brief description of each maneuver for the applicable show to be performed, highlighting the EA-18G's unique performance capabilities and how they apply to the ship and combat environments.

6. Growler Airshow Team Aircrew Selection. All nominations for Growler Airshow Team pilots and EWOs will be submitted to the FRS CO for initial screening. The aircrew must have the ability to positively project a favorable image for the U.S. Navy, while consistently executing a disciplined, precise, and safe AFP. All team members should be fully qualified FRS instructors. AFP pilots nominated must have a minimum of 1,000 flight hours, exceptions at the discretion of the FRS CO. When nominated by the CO, the aircrew candidate should "shadow" a minimum of one Growler Airshow Team airshow performance prior to completion of the current airshow season.

7. General AFP Procedures. To ensure a safe and successful flight, participants will observe the guidelines listed below.

a. Planning. The AFP is planned to properly demonstrate the capabilities of the EA-18G, to capture, and hold the attention of the spectators. Pilots will be intimately familiar with all maneuvers and their proper order in the AFP to present the aircraft in the most effective manner at each specific airshow site. Practice and prior planning are essential for a safe and professional evolution. If the EA-18G AFP, or any portion of the Navy Legacy profile are to be flown over water, special consideration must be given to the lack of ground rush visual cues. A conservative approach will be taken to avoid placing the aircraft in a hazardous situation. The AFP should be practiced in the simulator or W-237 airspace by pilots scheduled to execute the AFP at an over-water site.

b. Practice. Repeated flight and simulator practice sessions are essential to ensure a crisp, safe, and well-positioned evolution. Pilot usage of "gouge" documents are prohibited. The contents of this document will serve as the single-source reference for procedural knowledge and proper execution of all FRS AFP profiles. Enclosures (2) and (3) outline all training requirements and syllabi.

c. Flight Discipline. AFP specifics will be thoroughly briefed and debriefed for all practices and aerial profiles to facilitate accurate, precise, and safe execution of all maneuvers. Any deviations below approved altitudes (or outside any given safety parameters) will be debriefed thoroughly. Multiple instances of a pilot operating outside the parameters listed in this document will be subject to suspension or removal from the Growler Airshow Team. No additional maneuvers may be added to the AFP unless prior approval is granted by the FRS CO and CVWP. Maneuvers may be removed from an AFP at the discretion of the performing pilot or safety observer based on pre-flight or real time assessment of site and environmental conditions.

d. Environmental. Aircrew will adhere to all AFP Weather Criteria set forth in enclosure (1). Aircrew must inform the show officials beforehand of weather minimums. If inadvertent IMC is encountered during an AFP, the AFP will be terminated. AFP aircrew will adhere to a 200 feet Above Ground Level (AGL) Minimum Altitude (MINALT) for all flight profiles except in a landing configuration if executing a Touch and Go. Aircrew must give special attention to the environment and show site conditions when determining to use a 200 feet AGL MINALT. Executing a safe show is the priority. It is incumbent upon the aircrew and safety observer to use experience and sound judgement when selecting the appropriate MINALT and will brief the appropriate Low Altitude Training (LAT) rules prior to execution.

e. FRS AFP Altimeters. Prior to launch, the barometric altimeter will be adjusted so that the Head-Up Display (HUD) altitude displays 0 feet. If airshow site elevation is such that the altimeter cannot display zero (dependent on local altimeter setting but anticipated when field elevation exceeds 1,900 feet Mean Sea Level (MSL)), a coordinated altimeter setting, briefed by the airshow Air Boss, and used by all performers will be utilized. Aircrew will be aware of this limitation and practice it prior to an AFP at an airfield with a known higher field elevation.

f. Fuel Management. Proper fuel management is critical. The profile will be immediately terminated if a low fuel indication occurs or total fuel is less than 2,500 pounds. Pilots will plan and brief to the contingency of completion of the AFP with the appropriate amount of fuel to execute a dirty "BINGO" profile to the airshow divert. When operating at airfields with less than 7,000 feet available runway length, internal fuel only should be utilized.

g. Emergencies. Any emergency encountered will immediately be handled per the Naval Air Training and Operating Procedures Standardization Flight Manual. The flight profile is secondary to the safety of the aircrew and, more importantly, the spectators. For all show practice and AFP profiles, a safety observer with ultra-high frequency (UHF) or very high frequency radio (VHF) must be present. Additionally, airfield emergency vehicles, to include a fire truck and ambulance with qualified rescue personnel, will be present for the duration of the AFP profile and Legacy flight.

8. Cockpit Recording Devices. Any recording with a Portable Electronic Device (PED) will adhere to reference (h). Qualified AFP aircrew may use CVWP issued recording equipment in the aircraft during CVWP approved airshows and aerial flight profiles. Aircrew will ensure sterilization of any classified information in the aircraft prior to recording. All recorded content will adhere to reference (h) prior to publication or use outside of VAQ-129.

8 Mar 24

9. Media Storage. In order to facilitate multiple airshow performances and a demanding public engagement schedule at each show site, the Growler Airshow Team aircrew will be granted the following exemptions from the CVWP Standard Operating Procedures:

a. Aircrew will travel to and from shows with all media to include a RMM. Upon arrival, aircrew will store all RMMs in a GSA approved safe. Aircrew will be permitted to conduct the entirety of the show, to include all performances, with only a Data Transfer Device and Cryptological Ignition Key (CIK). At the conclusion of each performance, aircrew will remove only the CIK, ensure the canopy circuit breaker is pulled, and the aircraft has proper 24-hour security. Prior to final departure from the show site, aircrew will retrieve all stored media and return home with all classified media.

b. This exemption may only be made less restrictive at the discretion of the FRS CO.

10. Records Management. Records created as a result of this instruction, regardless of media and format, must be managed per Secretary of the Navy Manual 5210.1 of September 2019.

11. Review and Effective Date. Per OPNAVINST 5215.17A, CVWP N3 and VAQ-129 will review this instruction annually around the anniversary of its issuance date to ensure applicability, currency, and consistency with Federal, DoD, SECNAV, and Navy policy and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will be in effect for 10 years, unless revised or cancelled in the interim, and will be reissued by the 10-year anniversary date if it is still required, unless it meets one of the exceptions in OPNAVINST 5215.17A, paragraph 9. Otherwise, if the instruction is no longer required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.



D. A. GANCI

Releasability and distribution:

This instruction is cleared for public release and is available electronically only at the CVWP Flankspeed Portal <https://flankspeed.sharepoint-mil.us/sites/CPF-CNAP-CMDS/CVWP?e=1%3A69b5345d1f4d41889b57752ac364be08>

Growler Airshow Team Airshow Flight Profile (AFP) Maneuver

1. General Guidance

a. The Growler Airshow Team Airshow Flight Profile consists of nine maneuvers and flybys by up to two aircraft. While no additional maneuvers are authorized, any maneuver may be deleted at the discretion of the aircrew or safety observer. All maneuvers are performed outside a show line established parallel to and offset 500 feet (non-aerobatic passes) laterally from the crowd. Lateral offsets differ from maneuver to maneuver. Offsets are crosswind corrected in order to be in compliance with Federal Aviation Administration (FAA) restrictions and are outlined in the individual maneuver descriptions. Takeoffs and landings are performed no closer than 500 feet laterally from spectators. The entirety of the AFP will be flown within the FAA delineated Temporary Flight Restriction (TFR) area.

b. Standard Terminology

(1) The standard termination of each pass is a high-performance turn and climb, away from the crowd, with the option for a 270 degree opposite roll as the pilot positions the aircraft for the next pass, also known as a "Reposition". Reposition maneuvers may be flown in either direction at any time during the flight sequence as required. Per FAA regulations, 90 degrees of bank may be exceeded during repositions (if required). The standard repositioning maneuver is a climbing check turn away from the show line, a 270 degree roll away from the crowd (i.e., roll left to turn right), and then a descending turn back toward the show line while setting up for the next maneuver.

(2) Throughout this document, the term "MAX AB" is defined as selection of throttles to the full forward position.

(3) Load limit pulls are defined as a smooth pull to full aft stick to the maximum G available above corner airspeed, not to exceed 7.5G.

(4) The "waterline" is defined as where the nose of the aircraft is pointing and will be referenced in maneuver descriptions.

(5) The abbreviation "A/R" for a parameter means "as required" and "N/A" means "not applicable."

(6) A "Remote Show" is defined as a TFR that is not geographically collocated with the airfield from which the jet is parked such as an over water show.

2. Configuration

a. The profile should be flown in a SCL-0 configured EA-18G. However, due to FRS operational requirements the profile can be flown with one external fuel-tank on station 6 only. The standard fuel weight for startup should be 13,300 pounds.

3. Weather Minimums

- a. AFP and Navy Legacy: 1,500 feet ceiling and 5 statute miles visibility.
- b. 360 degrees defined horizon.

4. Altitude Restrictions

- a. Maximum Altitude: 15,000 feet Above Ground Level (AGL) unless otherwise restricted by the applicable TFR for the airshow.
- b. Minimum Altitude: 200 feet AGL (except takeoff, landing and LSO talkdown). If the LSO talkdown is to a runway the aircraft may execute a Touch and Go, however if it is a satellite show the aircraft is limited to 200 feet AGL.

5. Runway Criteria

- a. The minimum runway length for the Growler Airshow Team at a show site will be at a minimum 6,000 feet. If the airshow airfield site is less than 6,000 feet, the Airshow aircrew will request a waiver from CVWP no later than 10 days prior to the show.
- b. The performance numbers for a full flap, idle thrust landing at 1.0 density ratio with a 42,000-pound aircraft, having a 10-knot headwind, on a dry runway for the EA-18G is 4,000ft of landing roll out distance.
- c. The Airshow aircraft should be configured with a centerline fuel tank with no inboard pylons.
- d. In the event of a potential emergency during the show, the crews will have a viable divert within 100 miles with a 7,000 feet runway length or greater.
- e. Maintenance support will be available at all airfield sites with runways less than 7,000 feet to conduct "Hot Brake" checks post flight.

6. Approved Maneuvers and Passes

- a. Section Takeoff Execution. Per CVWP Standard Operating Procedure. After the takeoff is complete, the section of Growlers will execute a climbing break up, away from the crowd. The lead Growler will continue his break away from the crowd until 1,000 feet and accelerate to 350 Knots Calibrated Airspeed (KCAS). The wing Growler will execute a <60 degree pitch climb at the end of the runway. The flight will rejoin at 1,000 feet AGL and maintain an arc no greater than 5 Nautical Miles (NM) to position in front of the crowd.

b. Split Break

(1) Execution: The section will approach the initial (3nm on runway centerline) and descend to NLT 300 feet AGL and accelerate to no faster than .96 IMN. The break will commence with the section in standard echelon with Wing being closest to the crowd.

(2) At show center, Lead will perform a level break away from the crowd with a load limit pull. Once the initial pull is made lead pilot should de-stage AB, utilizing speed brakes A/R to slow the aircraft and arrive at the start of the Low approach at NLT 200 feet AGL and 200 KCAS.

(3) Wing will execute a load limit pull to no greater than <60 degree pitch climb. Upon reaching 2,500 feet AGL, Wing will execute a reposition maneuver away from the crowd.

c. Low Approach

(1) Execution: Out of the break, Lead will slow for a clean 220 KCAS low approach. At show center, Lead will select MAX AB, begin to pull up no greater than 60 degrees pitch while maintaining 200 KCAS and less than 22 alpha. Upon reaching 1,500 feet AGL, Lead will use a -1G unload to level the aircraft, accelerate to no less than 250 KCAS, and execute a reposition maneuver away from the crowd.

(2) Wing should set up the timing to execute a High-Speed pass at show center as Lead is executing their low approach climb out. Wing will offset laterally outside from Lead on the 1000-foot line and maintain sight of Lead at all times.

d. Landing Signal Officer (LSO) Talk down / Cross Break

(1) Execution: Lead will set up for the initial at 3 NM and 1000 Feet AGL on the 500 foot line. Lead will then descend to 500 feet AGL and airspeed not to exceed .96 IMN. Just prior to show center, Lead will execute a level load limit pull break turn away from the crowd. Out of the break, Lead should de-select AB and utilize speed brakes as required to slow below 250 KCAS. Once below 250 KCAS Lead will configure the jet to gear down, flaps full and on-speed for the touch-and-go or low approach. Following the touch-and-go, Lead will execute standard Wave-off mechanics while selecting MAX AB. With a positive rate of climb established, Lead will retract the gear and flaps and climb to 500 feet AGL, executing a reposition behind the crowd.

(2) Wing will set up the timing to execute a 90 degree overhead crowd break at show center as Lead is executing his level break at show center. Wing will maintain 1000' AGL until lateral deconfliction is ensured. Out of wing's 90-degree break, the aircraft will maneuver to set up a high speed right to left pass at the 1000-foot line. Post high-speed pass, wing will execute a climbing 270-degree turn to rejoin on lead.

e. High Speed Passes

(1) Execution: These maneuvers will be flown beyond the 500-foot show line. Aircraft will maintain beyond 500 feet horizontally from the crowd and outside the designated show crowd corner markers. Upon reaching the airshow corner markers, at 200 feet AGL, select MAX AB until past the show line or until 600KCAS/.95 IMN is anticipated, not to exceed .96 IMN.

f. Navy Legacy Flight

(1) Execution: Per COMNAVAIRPAC and COMNAVAIRLANTINST 3700.2D.

g. Head On Split Break

(1) Execution: The section will approach show center from in front of the crowd in a .4 NM lead / trail formation at 310 KCAS, lead at 300 feet AGL and wing visually separated above. Approaching the 1500-foot show line lead will command the break while breaking right and wing will break left for 180-degrees of turn.

h. Slow Speed Break

(1) Execution: The section will approach show center from left to right on the 500-foot line in a lead / trail formation (No closer than .4NM) at 300 feet AGL. When each jet reaches show center they will execute a break away from the crowd at 300 KCAS. Upon reaching 90 degrees off of show center, both jets will execute a <60 degree pitch climb for the rejoin.

i. Growler Good-Bye Pass (Satellite Show)

(1) Execution: From behind the crowd, the section will approach show center in line abreast formation and execute a <60 degree pitch climb in front of the crowd.

7. Contingencies

a. If there is aircraft fallout, the AFP may be performed with a single aircraft. The aircrew will execute Lead's scheduled maneuvers prior to the Legacy portion.

b. Mission Commander may decide to remove maneuvers or repeat maneuvers at the discretion of the Air Show Air Boss.

c. The AFP can be performed soloized with FRS CO approval.

8. AFP Show sequence example: (Weather 1,500 feet and 5 SM)

a. Section T/O (after Legacy Warbird takes off)

- b. Split Break
- c. Lead: Low Approach, Wing: 1st High Speed Pass
- d. Lead: Max Performance Climb, Wing: Reposition
- e. Lead: LSO Talk down, Wing: Overhead Crowd Break, 2nd High Speed Pass
- f. Legacy Flight Portion
- g. Head on Split Break
- h. Full Stop or Growler Good-Bye Pass

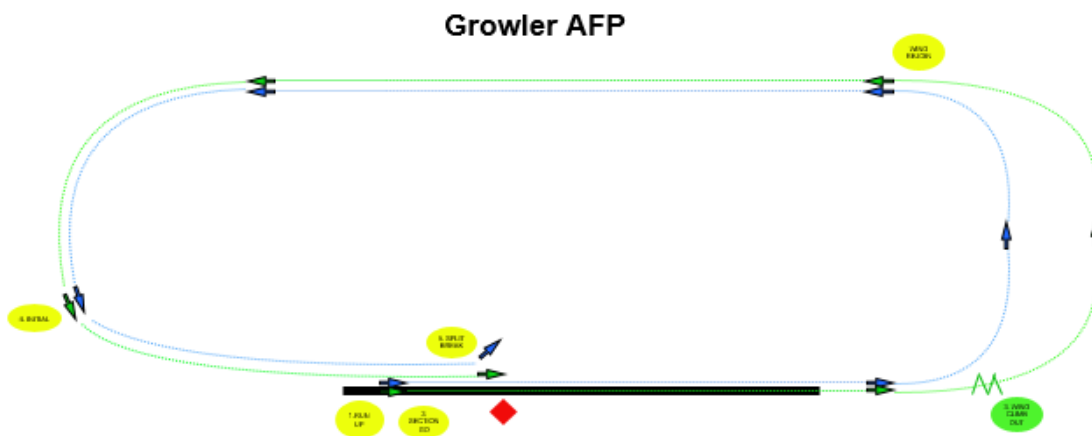


Figure 1 Diagram of initial Section Takeoff and setup for the Split Break.

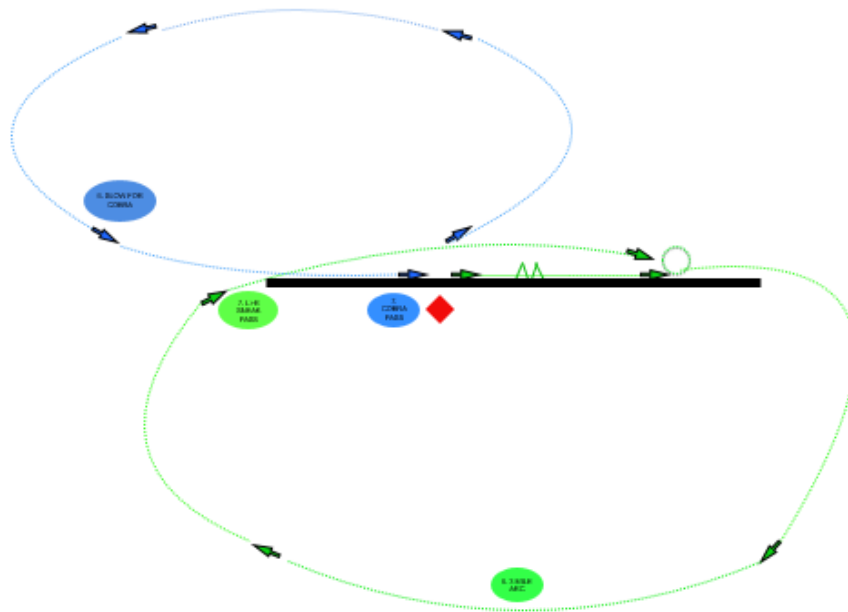


Figure 2 Diagram of the Split Break followed by Lead's Low Approach and Wing's High Speed Pass

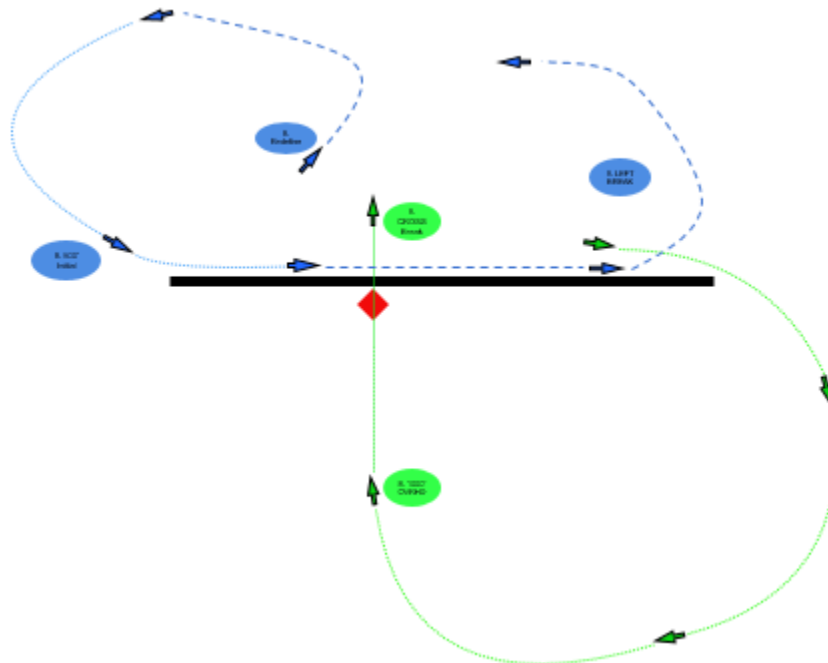


Figure 3: Diagram of Lead's Left Break and Wing's Cross Break at show center.

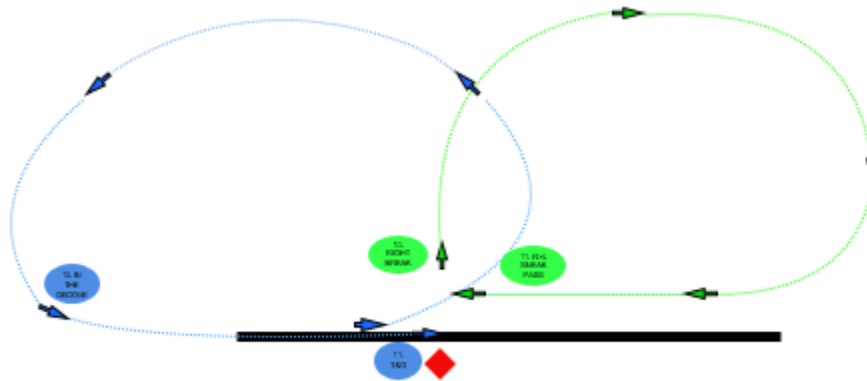


Figure 4: Diagram of Lead’s LSO Talkdown and Wing’s Right to Left High Speed pass at the 1500’ Line

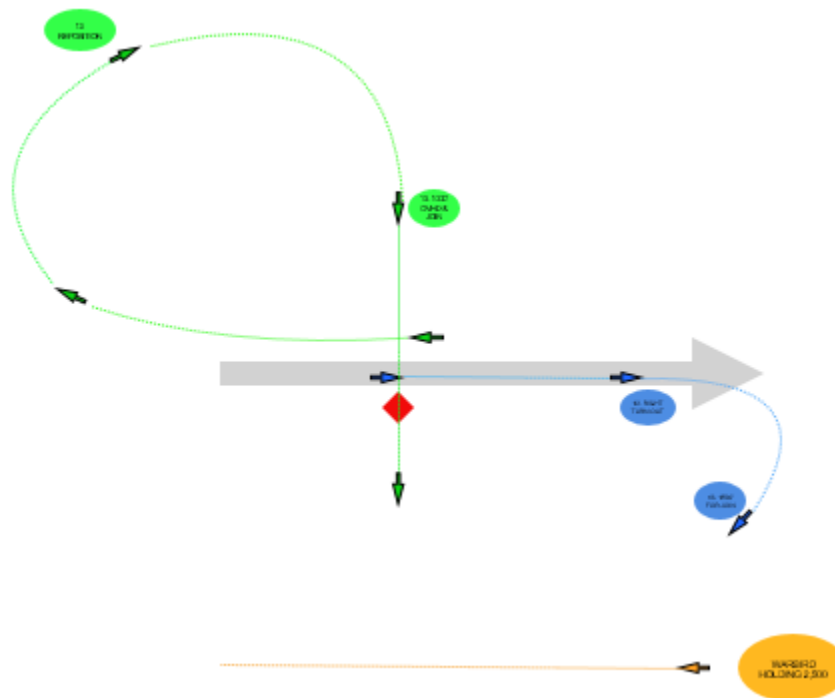


Figure 5: Diagram of Lead's Touch and Go to rejoin on the Warbird and Wing's right 270' reposition to join on Warbird.

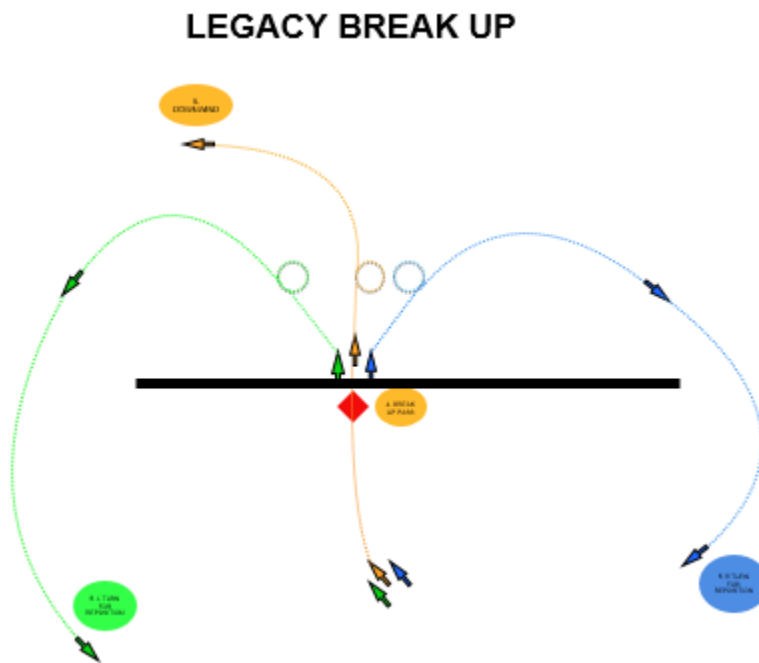


Figure 6: Diagram of Legacy Break Up post the Legacy Flight Demonstration.

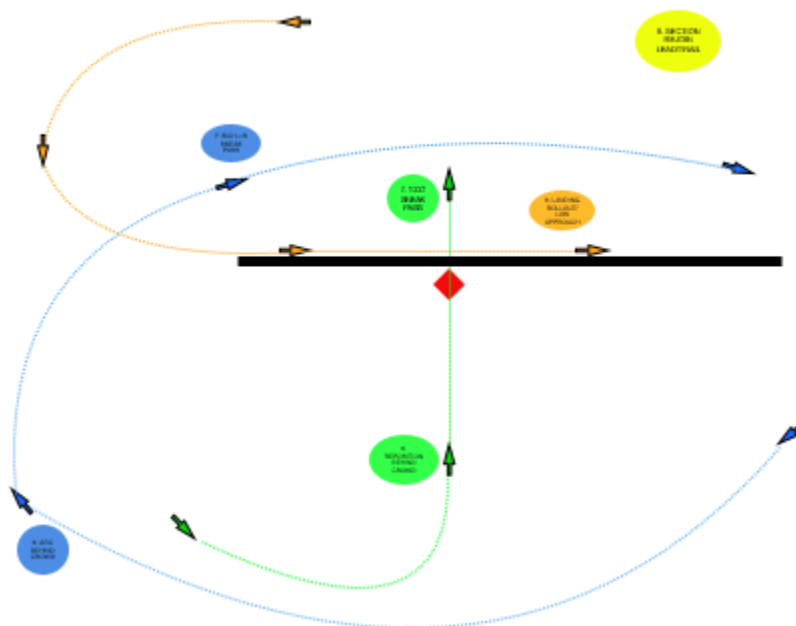


Figure 6: Diagram of Lead's Left to Right Sneak and Wing's Overhead Sneak. Conclusion of Legacy Demonstration Portion.

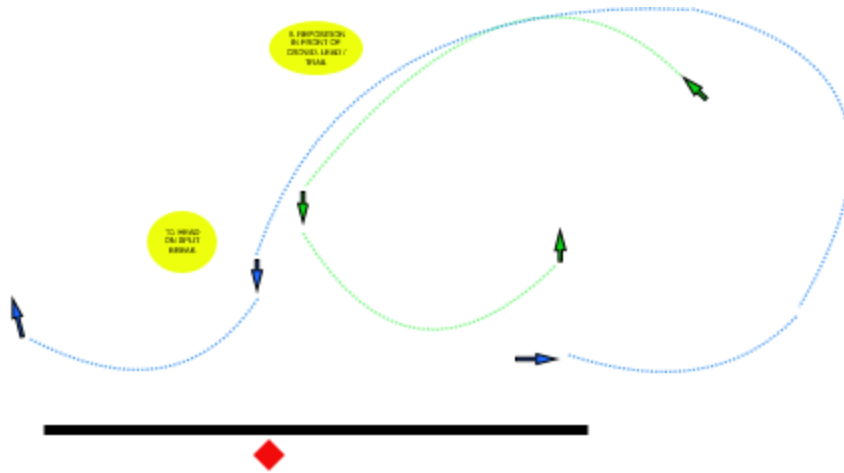


Figure 6: Diagram of the Section's rejoin in Lead / Trail for the Head on Split Break

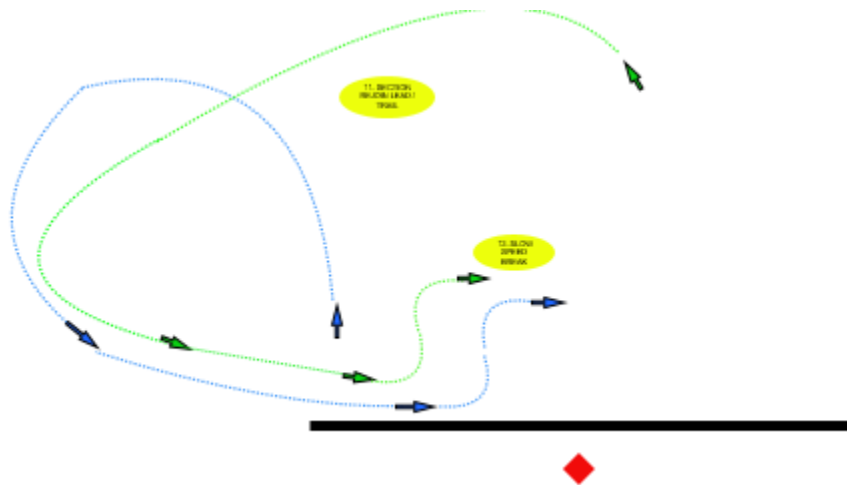


Figure 7: Diagram of the Section's Lead / Trail Slow Speed Break

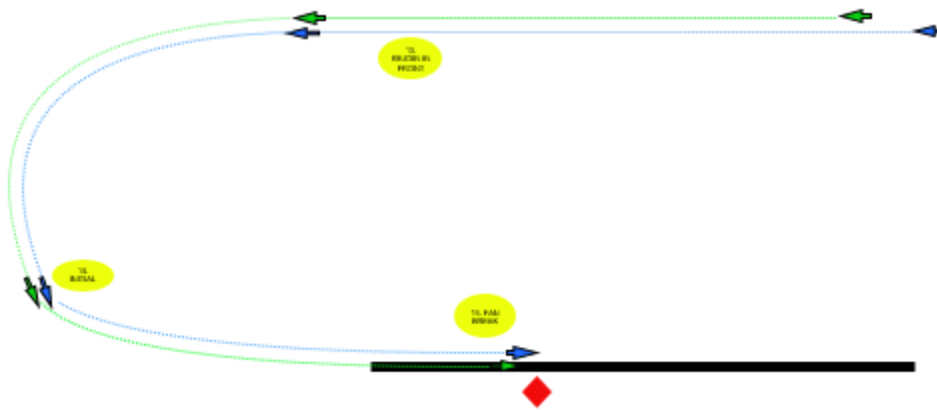


Figure 8: Diagram of the Section's Fan break to land.

Growler Airshow Team Pilot Training Requirement

1. AFP Aircrew Training Sequence

a. Upon nomination as a Growler Airshow Team member, aircrew should "Shadow" (i.e. in the airshow spare aircraft) a currently qualified Growler Team aircrew in the corresponding crew station, at a minimum of one airshow, prior to the end of the current airshow season.

b. The FRS CO will ensure nominated aircrew complete the AFP maneuvers as described and depicted in enclosure (1) in an appropriate type simulator. After academic instruction, a simulator syllabus, outlined in enclosure (3) will be completed with a currently qualified AFP pilot observing and grading from the simulator console. Instruction will include techniques, safety factors, and any applicable emergencies unique to the AFP.

c. Following completion of the simulator syllabus, aircrew will complete the airborne AFP syllabus. Each flight profile will be completed in its entirety for the aircrew to be qualified in the AFP. The entire training syllabus is outlined in Enclosure (3).

d. After completion of the training syllabus, and adequate practice sessions as determined by the Team Lead, the FRS CO will recommend the team member suitable for Annual Legacy Training where they will receive a FAA designation letter per COMNAVAIRLANTINST 3700.2D.

2. Briefing and Debriefing

a. Simulator Briefing and Debriefing

(1) All AFP syllabus simulator event briefs should be scheduled for a minimum of 30 minutes prior to box time. Debriefs are expected to take a minimum of 30 minutes after completion of box time. Growler Airshow Team pilot candidates will conduct the brief with a qualified Growler Airshow Team pilot.

(2) Briefs will include a review of the maneuvers in the AFP to be executed, weather conditions, specific briefing items outlined in the syllabus event guide, crew coordination to include ejection criteria, and mandatory briefing items to include unusual attitude recovery boldface and emergency dive recovery boldface. All AFP aircrew will be able to recite the procedures of all applicable maneuvers by memory and demonstrate knowledge of all the relevant execution notes for each maneuver. The simulator observer will interject with appropriate knowledge or technique and will be responsible for determining if the candidate's procedural knowledge is adequate to conduct the simulator event.

(3) Debriefs will include a thorough review of the pilot's performance in the simulator, EWO's crew coordination, questions about procedures or techniques, and what to expect on the next event. Pilots will review playback of the simulated maneuvers when the capability exists to discuss procedures and technique.

b. Flight Briefing and Debriefing

(1) All AFP syllabus flight event briefs will be scheduled for a minimum of two hours prior to scheduled takeoff. Debrief completion will be scheduled for a minimum of two hours after scheduled land time.

(2) Briefs must include a review of the maneuvers in the AFP to be executed, weather conditions, notice to airmen, specific briefing items outlined in the syllabus event guide, mandatory briefing items to include unusual attitude recover boldface, and emergency dive recovery boldface. All AFP aircrew in the brief will be able to recite the procedures of all applicable maneuvers by memory and demonstrate knowledge of all the relevant execution notes for each maneuver.

3. Currency Requirements and Restrictions for AFP Aircrew

a. Currency is as outlined in the CVWP SOP for dynamic maneuvering.

b. Currency for AFP Flight:

(1) Must have flown one flight in six days, two flights in 14 days, one of which must contain dynamic maneuvering. In addition, the AFP pilot must be Low Altitude Training current, having flown in the Low Altitude Training environment (<1,500 feet AGL) for a minimum of 10 minutes within 30 days of an AFP.

(2) Must have flown a practice AFP or AFP performance within the previous 10 days. If the aircrew are unable to meet this requirement, they may fly a practice at the airshow site provided it does not occur during a show open to the general public and they meet the currency requirements above. If the AFP flight is flown over water, a practice AFP should be flown within the previous six days.

c. FRS AFP Practice and Flight Restrictions

(1) The minimum altitude for all AFP maneuvers is 200 feet AGL. Touch and Go's are exceptions.

(2) EA-18G weather minimums are 1,500 feet and 5 statute miles with a 360-degree defined horizon.

(3) An AFP aircrew, for a particular show, should dynamically fly the aircraft to be flown in the show within the preceding five calendar days.

Growler Airshow Team Simulator and Flight Training Syllabi

1. Simulator

a. All FRS AFP simulator syllabus events will be scheduled for a brief time 30 minutes prior to box time, a box time of one hour, and a debrief time of 30 minutes.

b. Simulator Syllabus

(1) SAFP-701: Airshow Flight Profile – All Aircrew.

(2) SAFP-702: Airshow Flight Profile Check Ride – All Aircrew.

(3) A qualified AFP Pilot will be present at the simulator console during SAFP-701 and 702 entirety (brief, conduct, and debrief).

2. Flight

a. FRS AFP candidate pilots are required and EWOs desired to complete all flights in the syllabus.

b. Flight Syllabus

(1) FAFP-701: Airshow Flight Profile Intro – Pilot candidates in aft cockpit. AFP flown by current AFP qualified pilots.

(2) FAFP-702: Airshow Flight Profile Check Ride – Flown by pilot candidates. Current AFP pilots evaluate from aft cockpit.

(3) A qualified FRS AFP Pilot will be present during FAFP-702 entirety (brief, conduct, and debrief).

(4) FAFP-703: Airshow Flight Profile Over Land – All Aircrew.

(5) FAFP-704: Airshow Flight Profile Over Water – All Aircrew.

(6) FAFP-705: Airshow Flight Profile with Simulated Warbird– All Aircrew.

(7) FAFP-706: Airshow Flight Profile with Simulated Warbird – All Aircrew.

(8) FAFP-707: Legacy Airshow Training (Lemoore, CA) – All Aircrew.

Enclosure (4)

COMVAQWINGPACINST 3710.4
8 Mar 24

Growler Airshow Team Aircrew Example Designation Letter

1210
N00
DDMMYY

From: Commander, Electronic Attack Wing, U.S. Pacific Fleet
To: LT John T. Snow, USN, 1310

Subj: DESIGNATION GROWLER AIRSHOW TEAM AIRCREW

Ref: (a) COMVAQWINGPACINST 3710.2

1. Per reference (a), you are hereby designated as a Growler Airshow Team Airshow Profile Pilot.
2. You will comply with the provisions of reference (a) in the performance of your duties.
3. This designation will remain in effect until you are properly relieved, this designation is formally revoked, or upon detachment from this command.

D. A. GANCI

Copy to:
NATOPS

Enclosure (5)



2024

VAQ-129

EA-18G GROWLER LEGACY FLIGHT TEAM

Support Manual

NAS Whidbey Island

Oak Harbor, WA

TABLE OF CONTENTS

<u>Section</u>	<u>Name</u>
1.....	Introduction
2.....	Information/Personnel Requirements
3.....	Lodging/Transportation
4.....	Operations
5.....	FAA Waiver/NOTAMs
6.....	Maintenance/Security Requirements
7.....	Recruiting/Public Appearances

Attachments

1.....	Requirements Checklist
2.....	Air Show Information Sheet

Section 1 - Introduction

Congratulations! Your Air Show has been selected as a performance site for the EA-18G Growler Legacy Flight. The purpose of this document is to provide your Air Show with the information and requirements needed to host the EA-18G team. We look forward to working with you and hope to help make your event a success. The EA-18G Growler team will display 2 frontline United States Navy jets in a dynamic high speed flight before joining in a very unique formation with legacy aircraft flown by the Naval Legacy Flight Demonstration Team civilian pilots. For Information about the Navy Legacy Team please visit <https://navylegacyflight.org/about.html>. Please reach out early to the Overall EA-18G Coordinator (LT ANGLE) if you have any questions or concerns.

Contact Information

2024 Overall EA-18G Team Coordinator

LT Austin "Velcro" Angle

austin.l.angle2.mil@us.navy.mil

c: (503) 616-8949

*Specific Air Show Points of Contact will be passed upon initial contact

Mailing Address

VAQ-129

ATTN: LT Austin Angle

Navy Legacy Flight Team

3740 N Charles Porter Ave Oak Harbor, WA 98278

Section 2 - Information/Personnel Requirements

Information Requirements

The Air Show Information Sheet (Attachment 2) contains information needed by the EA-18G Team. Please send it as soon as possible, but **no later than 30 days before your Air Show**. Additionally, please provide the team with a detailed schedule of your Air Show. It should list all of the scheduled events and performance times from opening until closing.

Personnel Requirements

The Navy Legacy Flight Team will bring a minimum of 2 EA-18G Growlers (ideally 3) with a total of 6 aircrew. While the performance is flown with 2 Aircraft, the third jet is to be used as a spare or static display. Expect the aircraft to arrive the day prior to the practice Air Show and return after the final performance (either the same day at the conclusion of the show, or the following morning). The total number of aircraft and arrival/departure dates are subject to operational necessities so please confirm these details with the team on receipt of this manual.

Maintenance Personnel

- (1) The EA-18G team requires 8 maintenance personnel at each show. The team will notify you if more than 8 personnel are required.
- (2) The EA-18G team requires that the show pay for roundtrip air transportation for all maintenance support personnel. Flight reservations should be made to depart/return from SEATAC International Airport (KSEA), Everett (KPAE) or Bellingham (KBLI). Ensure the maintenance personnel arrive prior to the EA-18G Growler aircraft and depart after the jets have departed. Please arrange for pickup and drop-off of maintenance personnel at the airport or rental car pick up at the airport and coordinate the specific arrival/departure times with the team.
- (3) For shows within 300 miles of Oak Harbor, WA there is the possibility for maintenance personnel to drive to and from the show site. Please coordinate with the EA-18G team representative to arrange a local Oak Harbor rental car pick up for the maintenance team if the driving option is utilized.

Section 3 – Lodging/Transportation

Lodging

The Air Show should book lodging for all members of the EA-18G Team using the following guidelines:

- (1) Provide 14 (6 for aircrew and 8 for maintainers) individual nonsmoking rooms at the performer hotel.

The team may also require additional rooms due to other circumstances/requirements for your show. The team would prefer not to split into Officer/Enlisted quarters at military locations in order to maintain team integrity.

- (2) Reserve rooms under the **"VAQ-129 Growler Legacy Team"** name as team members may change at the last minute and confusion may arise if rooms are reserved under individual names.
- (3) Should the team's aircraft experience a malfunction, they may be forced to stay longer than planned. In that case, the team would require the rooms for as long as required to repair the jet.

Transportation

Please provide the team with a total of 3 vehicles: 1 SUV/minivan/truck to carry maintenance tool boxes and equipment, and 2 minivans for the transport of aircrew and maintenance personnel. Vehicles assigned for team use should be available for the duration of their stay, to include a continued stay due to aircraft maintenance problems if the problem arises. Additionally, please ensure that team members are covered by insurance while driving the courtesy vehicles.

Section 4 - Operations

Airfield Diagram

Air Show organizers shall provide the EA-18G Team with a diagram of their airfield/show site. For remote shows, the team requires a diagram of the show site as well as the airfield from which the aircraft will stage. The airfield diagram should depict the following:

- (1) Show center location, coordinates and elevation.
- (2) The complete aerobatic box and boundaries of the waived airspace.
- (3) The entire show line and crowd line (with distance between them) and any secondary crowd lines.
- (4) Aircraft parking location and coordinates.

- (5) Magnetic (MAG) bearing of the runway, depiction of Magnetic North and the scale of the diagram.
- (6) Access routes to show center and aircraft parking.
- (7) Overhead imagery of the airfield and surrounding area.

Show Line

- (1) The Navy Legacy Flight requires a Category III aerobatics box with a 5 nautical mile TFR in order to complete the show. The show line should be an absolute straight path over the ground, located 500 feet in front of the crowd. If the crowd line is other than a straight line, the show line must be 500 feet from the closest spectator area. The EA-18G Team will use this line as the primary reference for all maneuvers.
- (2) All markers used to define the show line should be large, highly visible and easily identifiable.
- (3) Over water show line - For EA-18G flights flown over water, an artificial show line must be defined by fixed markers as described above. Additionally, please ensure arrangements are made to keep non-participants from entering the aerobatic box during the flight profile.

Show Center

- (1) Show center is the location which the pilot uses to center each maneuver during the flight profile. Show center should be marked by a large, highly visible and easily identifiable object.

Aircraft Parking

- (1) Please have personnel available to show the aircraft parking positions to the senior maintenance representative when they arrive. The team prefers to park as close as safety permits to the crowd line so the crowd can see the aircrew and maintenance team at work. The second profile aircraft cannot be used as a static display aircraft and should be parked in the same location as the primary EA-18G jet.
- (2) Ensure the parking area has proper weight bearing capacity (a fully fueled EA-18G aircraft weighs

approximately 52,000 lbs.). If you are in doubt, contact the EA-18G Team.

- (3) Provide hangar space for aircraft in the event of severe weather (hail, etc.), maintenance of aircraft or security concerns.
- (4) The parking area and all taxiways/runways the team uses must be free of foreign objects. It is mandatory that all surfaces (runways/taxiways/ramps) be thoroughly swept before the team's arrival.

EA-18G Flight Profile Specifics

- (1) The EA-18G profile portion of our show lasts approximately 15 minutes with an additional 5 minutes flown with a legacy aircraft. It is imperative that no other events be scheduled during this time to include departures/landings unless specifically briefed and approved by the aircrew.
- (2) The EA-18G profile can be performed any time between civil sunrise and sunset.
- (3) The team requires 1 practice period prior to the show; ideally the day prior. Each show or practice period should consist of 15 minutes for an EA-18G only profile, 20 minutes with a legacy aircraft component. Specific practice times can be coordinated with the aircrews. (In rare instances for a large metropolitan show, we can accommodate changes to this plan, please contact your specific show representative if this is applicable.)
- (4) The morning prior to the practice is an ideal time for any Public Affairs events or tours.

Weather

- (1) The minimum required weather will be 1,500 feet ceiling and 5NM visibility. Aircrew must be able to maintain VMC at all times.

General Information

- (1) The team will not exceed the speed of sound during their EA-18G profile.
- (2) If you plan to use a 500' show line for civilian performers, the EA-18G team aircraft must be parked at

least 300' from the 500' show line to avoid over flight of their aircraft.

- (3) To accommodate friends and family members, please provide the team with passes for parking and access to the VIP or family/friend areas for EA-18G Team guests. Contact the team for requested numbers.
- (4) Please ensure that the EA-18G Team has easy access to meals and drinks during the Air Show.

Section 5 - FAA Waiver/NOTAMS

Airspace Requirements

- (1) EA-18G Team maneuvers require the following airspace:
 - a. 5NM radius TFR from show center
 - b. SFC-10,000' AGL

FAA Waiver

- (1) A waiver from the Federal Aviation Administration is required for the maneuvers performed by the Growler and Warbird during both the practice and actual Air Show.
- (2) In order for the team to perform at your Air Show, you must request a waiver to the following FAA regulations:
 - a. 91.117(a) - Aircraft speed in excess of 250 knots below 10,000'
 - b. 91.117(b) - Aircraft speeds in an airport traffic area
 - c. 91.119(b) - Minimum safe altitudes over congested areas (Military teams with approved maneuver package only)
 - d. 91.119(c) - Minimum safe altitudes over congested areas, except not closer than 500' to persons
 - e. 91.127 - Operating on or in the vicinity of an airport
 - f. 91.129 - Operations at airports with operating control towers (when appropriate)

- g. 91.155 - Buffer zone around clouds
 - h. 91.303 - Definition of aerobatic flight
 - i. 91.303(c) - Aerobatic flight within a federal airway
 - j. 91.303(e) - Aerobatic flight below an altitude of 1,500' above the surface
- (3) Note: Positioning turns for high performance aircraft operated by the EA-18G Team, regardless of the angle of bank or pitch attitude, but only as necessary to complete the turn, are not considered to be Air Show aerobatic maneuvers.
 - (4) At a minimum, waiver time for the practice and EA-18G profile must begin 5 minutes before scheduled takeoff and extend for 30 minutes. Although the actual EA-18G profile only lasts approximately 20 minutes, the additional time is requested to allow flexibility for possible maintenance problems or weather conditions. Please ensure the required time blocks are accurately reflected on the waiver request.

Notice to Airmen (NOTAMs)

- (1) Your airfield must be closed for the total time issued on the waiver for both the practice and actual aerial profile. This time includes closure to airlines at commercial or joint-use airfields.
- (2) Ensure a NOTAM is issued at least 48 hours in advance for both practice and actual profile waivers. Be sure to provide a NOTAM not only for airfield closing, but to include the closure requirement of 5NM from show center and 10,000' AGL for practice or EA-18G profile. Additionally, some show sites may require a TFR to be in place during the Air Show.

Hazards

- (1) Please provide the EA-18G crew with a sectional chart and advise of any hazards in the local area that are not readily apparent to transient aircraft. This information must be provided to the team prior to their arrival at your show site.

Runway Barriers

- (1) Unless otherwise coordinated with the team, show sites without arresting gear and with runways less than 8,000' must provide temporary arresting gear if an airfield with suitable arresting gear is not within 80NM of the show site. Please make contact with the nearest field with arresting gear to ensure that it will be rigged and the field is open for an emergency divert during your show.

Local Airports

- (1) Please make sure you contact all airports within a 5NM radius of your airfield to ensure they are shutdown during the time periods specified in the FAA waiver.

Section 6 - Maintenance/Security **Requirements**

Fuel Requirements

- (1) Aircraft require JP-5, JP-8, Jet-A or Jet-A+. The EA-18G Team will require approximately 3,000 gallons of fuel per EA-18G profile.
- (2) Military sites - Fuel will be purchased using the DOD fuel card for each respective aircraft.
- (3) Civilian sites - Navy regulations only allow the EA-18G team to pay the current government rate for fuel. It is essential that you communicate this requirement to your fuel provider. Any additional cost for fuel above the government rate will be the responsibility of the Air Show.

Maintenance Equipment Requirements

- (1) The following maintenance equipment is required:
 - a. Hydraulic cart (MIL-H-83282)
 - b. Preoiler (PON-6) (MIL-L-23699)

- c. One 50 pound HALON or CO2 fire extinguisher
 - d. Universal tow bar
 - e. Tow vehicle
 - f. Nitrogen cart
 - g. Power Cart
- (2) Please talk to your POC if you are unable to provide any of this equipment.

Aircraft Security

- (1) Military installations
 - a. Security for EA-18G Team aircraft will be in accordance with DOD directives.
- (2) Civilian installations
 - a. Arrange for around-the-clock protection of EA-18G Team aircraft from arrival until departure through local civilian law enforcement agency. No one is authorized to be on or around our aircraft without an EA-18G Team member escort.
 - b. Throughout all periods when EA-18G Team personnel are not present, the following requirements must be met:
 - i. Aircraft will be surrounded by a rope or raised barrier and an armed security patrol must provide constant observation of the aircraft.

Section 7 – Recruiting/Public Appearances

Recruiting

- (1) The following ideas are some of the various ways to help us with our Navy recruiting effort and to allow the public more access to the EA-18G Team:
 - a. Since recruiting is at the heart of the EA-18G Team's mission, please contact your nearest Navy Recruiter as soon as possible and inform them of the planned Legacy Flight and EA-18G profile. Some possible recruiting options include meeting with local Navy Recruiting personnel, providing space

for a recruiting display booth, and arranging for enlistments/reenlistments.

- b. Feel free to invite media representatives to the practice EA-18G profile, but please do not advertise the practice as an official event.
- c. Practices are excellent for hosting groups, which would otherwise have difficulty seeing the actual profile (physically challenged, veterans, elderly, etc.). Please notify the aircrew if you plan for any special groups to attend the practice and you would like them to meet the EA-18G Team.

Public Appearances

- (1) All public appearances must be coordinated with the EA-18G Team before their arrival. Please provide the following information for each public appearance relations event:
 - a. Name of Event - Visit to school, hospital, dinner, interview, etc.
 - b. Location of Event and Date/Time
 - c. Host/Hostess/Sponsor - Identify the individual or organization sponsoring the event and include their phone numbers
 - d. Description - A brief description of what the event sponsor/host would like the team to do while at the event.
 - e. VIPs/Dignitaries Attending - Mayor, civic dignitaries, military officials, etc.
 - f. Attire - Required dress for the event (military uniform, flight suit, civilian dress, etc.).
 - g. Time of Event - As stated earlier, the morning prior to the afternoon practice session is the best time for PR events.

D. A. GANCI

Attachment 1 - Requirements Checklist

Section 2 - Information/Personnel Requirements

1. () Air Show Information Sheet - Attachment 2 - Sent to team
2. () Schedule of events sent to team
3. () Commercial airline tickets for maintainers purchased by Air Show and itinerary sent to team

Section 3 - Lodging/Transportation

1. () Hotel reservations for 14 nonsmoking rooms for EA-18G team members
2. () 3 rental cars reserved

Section 4 - Operations

1. () Airfield diagram with the described information sent to team
2. () Show line/center marked as described to include over water shows
3. () FOD free ramp space reserved for 2-3 aircraft near crowd line, if able, rated to ~52,000lb gross weight
4. () Hangar space available for use, if needed
5. () Practice times scheduled prior to show (1 period (15 min minimum) please coordinate details with EA-18G representative)
6. () Navy Legacy Flight and EA-18G Flight profiles between sunrise and sunset
7. () 20 minutes (with legacy flight) 15 minutes (EA-18G only show) available for performance day.
8. () VIP access/reserved seating for team member guests (if requested)

Section 5 - FAA Waiver/NOTAMS

1. () Waivered airspace for 5NM from show center, SFC-10,000' AGL, with Approved CATEGORY 1 aerobatics box.
2. () FAA waiver meets all described requirements
3. () NOTAM/TFR requested for practice and show times
4. () Team informed of any local area hazards
5. () Arresting gear available within 80NM of show site (unless previously coordinated)
6. () Local airports notified

Section 6 - Maintenance/Security Requirements

1. () Required fuel available
2. () Civilian fuel provider notified of contract fuel price requirement
3. () Described maintenance equipment available
4. () Security arrangements made and requirements met for civilian sites

Section 7 - Recruiting/Public Appearances

1. () Local Navy Recruiter notified of Navy flight event
2. () Any special group meetings arranged with team
3. () Team notified of any scheduled public appearances/media requirements

Air Show Director Signature

Phone Number

Date

Attachment 2 - Air Show Information

Air Show Information

Airfield Name _____
Military Base OPS or Civilian FBO Phone _____
Air Show Title _____
Air Show Website Address _____
Air Show Director Name _____
Air Show Director Phone/Email _____

Air Show Coordinator Name _____
Air Show Coordinator Phone/Email _____

Air Boss Name _____
Air Boss Phone/Email _____
Housing/Transportation Coordinator Name _____
Housing/Transportation Coordinator Phone/Email _____

Date/Time of Practice Air Show _____
Thunderbirds/Snow Birds Performance Time _____

EA-18G Team Required Information

Aircraft Arrival Date/Time _____
Aircraft Departure Date/Time _____
Point of Contact for Maintenance
Personnel _____
Maintenance Personnel Arrival/Pickup
Date/Time _____
Maintenance Personnel Departure/Drop-off Date/Time _____

Lodging Reservation Number and Hotel Phone _____
