



16 APRIL 2020

**RANGE OPERATIONS
AND MAINTENANCE**

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RELEASABILITY: There are no release restrictions on this publication

OPR: 35 OSS/OSO

Certified by: 35 OG/CC
(Colonel Jared J. Hutchinson)

Supersedes: 35 FWI 13-203, 3 April 2020

Pages: 34

This 35FWI is provided in accordance with AFMAN 13-212v1, 22 June 2018, Range Planning and Operations. In addition, it implements AFPD 13-2, Air Traffic, Airfield, Airspace, and Range Management. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Additionally, if the publication generates a report(s), alert readers in a statement and cite all applicable Reports Control Numbers in accordance with AFI 33-324. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, Recommendation for Change of Publication; route AF Form 847s from the field through the appropriate functional's chain of command.

SUMMARY OF CHANGES

This publication has been revised to include the location of public sites around Draughon Range. These locations are outlined in [Attachment 2](#).

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1. General Information

1.1. **Introduction** R-130 (Draughon Range) and associated airspace is a Class A, joint use air-to-ground and electronic warfare training range, located 10 nautical miles (NM) north of Misawa Air Base. This range is in close proximity to host nation public facilities. A list of their locations is shown in **Attachment 2**. This supplement contains information and directives applicable to Draughon Range. It describes user and support responsibilities, scheduling procedures, boundaries, restrictions, and operating procedures for the range.

1.2. Range Responsibilities

1.2.1. Operational control of Draughon Range is exercised by the 35th Operations Group (35 OG) and implemented by the 35th Operations Support Squadron (35 OSS) as the USAF Range Operating Agency (ROA) for Draughon Range (R-130).

1.2.2. The 35 OSS flight scheduling section (35 OSS/OSOS) is responsible for scheduling range periods for United States Forces Japan (USFJ) and for coordinating use by Japan Air Self Defense Force (JASDF).

1.2.3. Draughon Range Operations and Management (35 OSS/OSOR) is provided by a civilian contractor responsible for the accomplishment of range operations, maintenance, and complying with established agreements regarding Draughon Range. Range Operations Officer (ROO)/Contracting Officer's Representative (COR) is provided by 35 OSS Current Operations (35 OSS/OSO) with oversight from 35th Operations Support Squadron Commander (35 OSS/CC).

1.2.4. The 35th Civil Engineer Squadron Explosive Ordnance Disposal (EOD, 35 CES/CED) is responsible for range decontamination, clearance, and munitions disposal.

1.2.5. Firefighting capabilities and prevention:

1.2.5.1. Draughon Range has limited firefighting capability.

1.2.5.2. Draughon Range Control Officer (RCO) will cease all operations, call the Misawa fire department, and coordinate first responder personnel (including JASDF) to contain/extinguish any unplanned or uncontrolled fires.

1.3. Target Area Maintenance, Decontamination, and Clearance

1.3.1. Definition of Terms

1.3.1.1. Target area maintenance. The term maintenance includes target construction, repair, or replacement as well as target area decontamination, clearance, and ammunition disposal. Decontamination and clearance are defined as follows:

1.3.1.1.1. Decontamination. The inspection, rendering safe, removal, and destruction of dud/fired munitions from clearance zones specified in AFMAN 13-212v1, 22 June 2018.

1.3.1.1.2. Clearance. The policing of target debris and ordnance declared and/or marked safe by EOD personnel with subsequent transport to a designated disposal area.

1.3.2. Target Area Maintenance

1.3.2.1. While decontamination and clearance operations are active, Draughon Range will be closed and emitters located on the range property will not emanate (see 2.3.6 for further details). Range personnel will request Airfield Management (35 OSS/OSAM) transmit an appropriate notice to airmen (NOTAM) and local advisories a minimum of 3 days prior to closures for decontamination/clearance operations. On the day(s) of closure, range personnel will contact Radar Approach Control (RAPCON) to issue over-fly restrictions as necessary. When the range is operational, the RCO must approve any target or target area maintenance.

1.3.2.2. All range closures for maintenance or equipment outage will be coordinated through 35 OSS/OSOS, Naval Air Facility (NAF) Misawa Liaison and 3rd AW (JASDF).

1.3.3. Decontamination clearance plans will be scheduled and approved by 35 OSS/CC in coordination with 35 OSS/OSOS, 13 FS, 14 FS, 3rd AW, NAF Liaison, and EOD. Range Operations Officer (ROO) will publish a decontamination clearance plan annually by 1 October for the upcoming 12-month period. The following organizations will provide support required to accommodate range decontamination clearance in an efficient and safe manner. Each organization will be responsible for establishing procedures which will ensure proper and timely support for flying training operations. A complete and signed decontamination plan will be forwarded to all coordinating and executing agencies.

1.3.3.1. 35 OSS/OSOR will:

1.3.3.1.1. Coordinate with 35 OSS/OSOS, NAF Liaison, 3rd AW, EOD, 35th Medical Group (35 AMDS/SGPF), 35 FW/SE, 35th Fighter Wing Public Affairs (35 FW/PA), and any other required agencies concerning the scheduled range decontamination.

1.3.3.1.2. Oversee planning and scheduling of range decontamination clearance.

1.3.3.1.3. Coordinate with EOD for collection and disposal of range residue IAW applicable directives.

1.3.3.1.4. Monitor range conditions to determine decontamination clearance requirements and conditions requiring special attention.

1.3.3.2. The 35 OSS/CC will:

1.3.3.2.1. Approve all decontamination clearance plans.

1.3.3.2.2. Advise 35th Operations Group Commander (35 OG/CC) and outside units of specific operational range restrictions and dates through 35 OSS/OSOS.

1.3.3.3. The 35 CES/CED (EOD) will:

1.3.3.3.1. Provide qualified personnel to clear explosive hazards and inspect and dispose of all ordnance found on Draughon Range.

1.3.3.3.2. Provide safety briefings for RCOs, range personnel, visitors, and all personnel involved in decontamination clearance operations as required.

1.3.3.3.3. Provide a copy of decontamination clearance report to include total tons removed, total acres cleared, number/hours of EOD personnel used, number/hours of non-EOD personnel used, and munitions cleared (type, number cleared, and number of duds) to 35 OSS/OSOR as input for the Annual Range Activity Report.

1.4. Weapons Range Supervision Operational control of Draughon Range is exercised by 35 OG/CC. The contractor's support of normal and exercise operations is performed under the operational direction of 35 OSS/CC. The COR is responsible for evaluating and reporting contractor performance. The Contracting Officer (CO) ensures the contract is administered in accordance with applicable regulations and issues any modifications to the contract while the Contracting Administrator (CA) oversees the COR surveillance effort. Range Manager duties include but are not limited to:

1.4.1. The authority to contractually and financially obligate the contractor's company and to make and implement all decisions regarding the performance of the range contract.

1.4.2. Coordinate range flying operations, procedures, and management with ROO, Mission Support Group agencies, and all users IAW this instruction.

1.5. Photographic Support. The 35 FW/PA will provide photographic support for all 35 FW range operations as required. Duties include processing and developing range photos. PA will also provide necessary notifications to the public when applicable.

1.6. Weather Support. The 35 OSS Weather Flight (OSW) provides weather forecasting support. Draughon Range personnel will be trained to provide limited observation reports to the Weather Flight.

1.7. Range Access and Inspections

1.7.1. Unescorted/Escorted:

1.7.1.1. All personnel within Draughon Range area will have 2-way communication radios at all times to be in contact with the RCO.

1.7.1.2. Escorted personnel are required to be briefed on range safety/security and must be accompanied by range personnel. Escorted personnel will not enter the 20MM HEI target at any time unless directly briefed/escorted by a qualified EOD technician.

1.7.1.3. Unescorted personnel are required to be briefed on range safety/security by range personnel and must receive an EOD briefing annually. 35 OSS/OSOR will keep records of all unescorted personnel EOD briefing dates. Unescorted personnel will not enter the 20MM HEI target at any time unless directly escorted by a qualified EOD technician.

1.7.2. Inspections. All Misawa Air Base agencies having a need to inspect Draughon Range will notify the QAE and coordinate with OSS/OSOS or OSOR prior to the proposed visit. This is to avoid conflicting visits and to ensure an escort is available. Confidentiality of no-notice “trusted agent” visits will be respected.

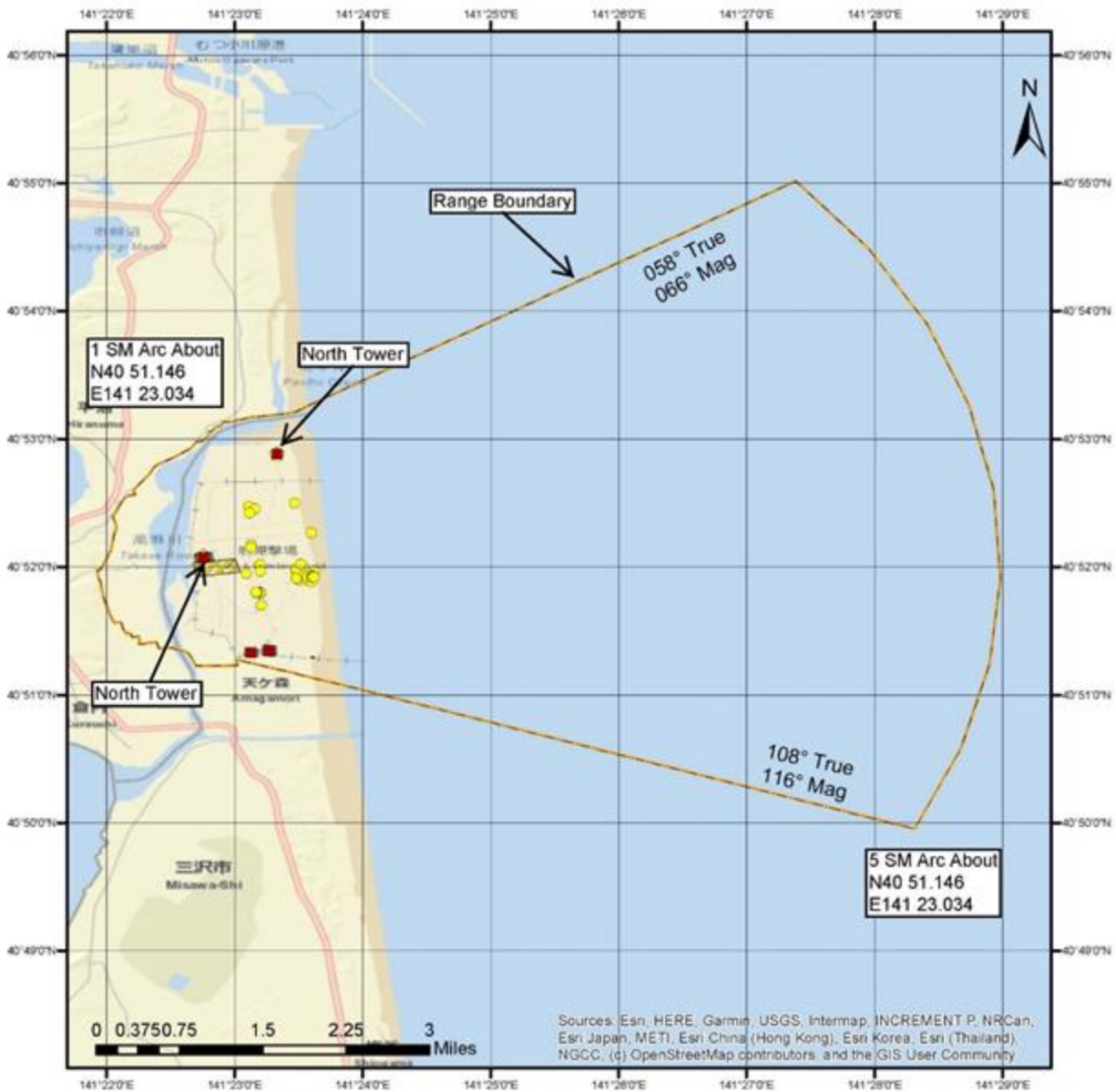
1.7.3. Range Access. Visitor access to Draughon Range will be limited to official business only. All personnel are required to notify 35 OSS/OSOS prior to being granted access. All military and civilian personnel will be properly identified before access is granted. Visitors must be escorted/supervised by range personnel at all times.

1.7.3.1. Range visitation and access by any persons who are neither US military/civilian personnel nor Japanese military/civilian personnel require Government of Japan (GOJ) notification in advance of entry. Notification should be made via 35 OSS/OSOS NLT 30 days in advance. As an absolute minimum in unforeseen circumstances, a 10-day prior notification of GOJ is required.

2. R-130 Air-To-Ground Training Range

2.1. **General** R-130 area is roughly a 1,900 acre semi-circle, one statute mile in radius from a focal point at N4051.146 E14123.034 (WGS-84). The entire eastern edge of Draughon Range borders the Pacific Ocean. The northern sea area boundary is a line drawn 058 degrees true from the northern tip of the land area. The southern sea area boundary is a line drawn 108 degrees true from the southern tip of the land area. Draughon extends to the east by a 5 statute mile arc from the focal point. Numerous populated areas surround the northern, western, and southern boundaries of Draughon Range, and must be considered for overflight and weapons employment. See [Figure 1](#)

Figure 1. Draughton Range Location.



2.2. Hours of Operation

2.2.1. Normal Hours: Draughton Range normal operating hours are 0700 to 2000 Monday through Friday from 1 Oct to 30 April. These hours are established in MOUI between GOJ and 35FW, under Terms of Use Agreement. Weekend and U.S. Federal Holiday use is by exception only and requires 35 FW/CC approval to ensure contractual obligations are not violated.

2.2.2. Extended Hours: Extended hours to 2200 local time during the months of April–September for a maximum of 15 days per month and a maximum total of 60 days over the six month period, are available upon request from 35 OSS/OSOS and must be requested a minimum of 30 days in advance. During extended hours, the range will be open from either: 0800-2100, or 0900-2200. If the range is to be used between 2000 and 2200 local, 35 OSS/OSOS will notify 35 FW/PA, who will then notify the local Defense Facilities Administration Office (DFAO), NLT 15 days in advance of intended use. As an absolute minimum in unforeseen circumstances, a 5-day prior notification of DFAO is required.

2.2.3. Quiet Hours: Quiet hours are periodically scheduled due to Japanese requests for agencies that operate underneath the range. Times of the restrictions can be found at the weekly scheduling meetings held IAW [para. 2.3.2](#). The types and altitudes of restrictions vary, contact 35 OSO/OSOS for specifics.

2.3. Scheduling

2.3.1. Authority: 35 OSS/OSOS is the only scheduling authority for Draughon Range usage. All ground or airborne use of Draughon Range for training requires at least 24 hours prior notice for approval unless further lead time is required per the guidance in [para. 2.2.2](#).

2.3.2. Scheduling Meeting: Scheduling meetings occur weekly. This meeting finalizes the following week Draughon Range and airspace schedule as well as projects the schedule for an additional week. All range users must submit their weekly range request to 35 OSS/OSO NLT close of business (COB) Tuesday prior to the meeting if they are unable to have a representative attend the meeting in person. Range time can be scheduled with 35 OSS/OSOS after the meeting. However, these requests will be prioritized lower than anything submitted at the meeting.

2.3.3. Priorities: 35 OSS/OSOS is the final decision authority for range scheduling. As a guide, 35 OSS/OSOS will use the following list to resolve conflicts. The following prioritized list, while authoritative, is not directive and requires judgment in application:

2.3.3.1. Pre-scheduled Range maintenance, EOD cleanup.

2.3.3.2. 35FW and JASDF units assigned to Misawa.

2.3.3.3. Naval Air Facility Misawa assigned units.

2.3.3.4. Transient units operating out of Misawa AB.

2.3.3.5. Transient units not operating out of Misawa AB.

2.3.4. Emitters: Range users desiring the use of emitters should submit requests at the weekly scheduling meeting to 35 OSS/OSOS. Specific requirements on each emitter are not required to be provided until 24 hours prior. Range personnel can only support up to a 6 hour window of availability for emitters, so it is imperative that any desired use of the emitters is submitted to OSOS prior to the weekly scheduling meeting. Emitter support is prioritized for 35FW units, then USFJ and PACAF assets. All other requests will be considered and prioritized by 35 OSS/OSOS. For support requests and further information on available emitters, please contact 35oss.draughon@us.af.mil and 35oss.rto@us.af.mil. Emitter request support card can be found on the OSS SharePoint:

<https://misawa.eis.pacaf.af.mil/35FW/35OG/35OSSWeaselHUD/DraughonRange/Coordination%20Card/Forms/AllItems.aspx>.

2.3.5. Cancellations: All cancellations must be made at least 24 hours prior to the scheduled range time. Changes, additions, or deletions to the range schedule will be forwarded to 35 OSS/OSOS, who will notify range personnel of all changes to the schedule. USFJ will contact 35 OSS/OSOR directly if unable to notify 35 OSS/OSOS. In the event of current-day cancellations due to weather or maintenance, call Draughon Range direct at DSN: 226-8941/8942/4961.

2.3.6. Range Cleanup: During scheduled range maintenance and EOD cleanup, adhere to the restrictions below.

2.3.6.1. Overflight Procedures: Overflight must be authorized by the ground party and RCO/ROO during maintenance and clearance operations. This ensures the protection of ground personnel and prevents aircraft damage by fragments from explosives operations. Strict adherence to the procedures outlined below is mandatory.

2.3.6.2. When range maintenance or clearance personnel are present on the range and explosives operations are not planned, aircraft will remain at or above 3,000 feet above ground level (AGL) unless a lower altitude is specifically approved by the ground party and RCO. No dry passes are authorized.

2.3.6.3. When explosives operations are planned, the range will be closed and no overflight of any kind will be authorized.

2.3.6.4. When no personnel are on the range but the range is closed for maintenance or clearance operations, aircraft operations may proceed with range control officer (RCO) approval. No additional altitude restrictions apply unless specified by RCO. Eye safe laser operations are authorized during range clearance closures with proper coordination. All restrictions will be clearly identified in the range schedule.

2.3.7. Bootlegging: During daily range operations flights may “bootleg” range airspace (use the airspace not scheduled as their own) if no other flight is currently on range. A “bootlegging” flight must exit range airspace when any scheduled flight checks in with Draughon Range.

2.3.8. Contact Information: 35 OSS/OSO personnel can be contacted at DSN: 315-226-3841/9922/5480/3292.

2.4. Communications

2.4.1. Conventional Range: Primary frequency is UHF 365.4. Secondary frequency is VHF 141.6. Emergency frequency is UHF 243.0. Voice call sign is “DRAUGHON TOWER.” Two-way communications with Draughon Tower must be established prior to entering R-130 airspace.

2.4.2. Joint Advanced Weapons Scoring Systems (JAWSS)

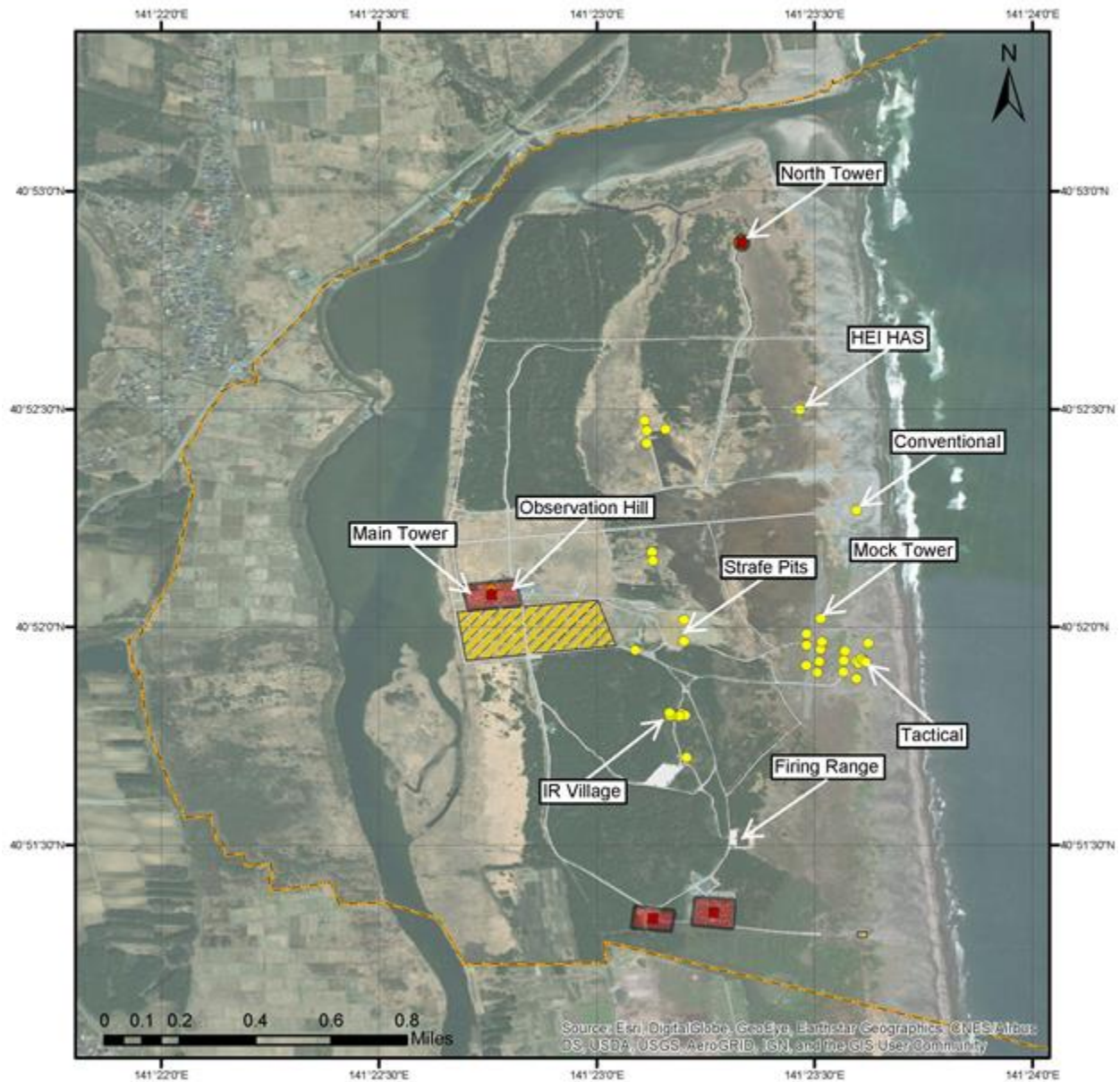
2.4.2.1. All range missions will be recorded and scored with Improved Remote Strafe Scoring System (IRSSS) and/or Weapons Impact Scoring Set (WISS).

2.4.2.1.1. IRSSS target summary data will be emailed/faxed to the flight lead or represented squadron. A detailed report containing each scored pass can be obtained on request.

2.4.2.1.2. 1264WISS system target summary data will be emailed/faxed to the flight lead or represented squadron. A detailed report can be obtained on request.

2.5. **Range Configuration** Range configuration is updated as required for local training use. Updates to the current range configuration, locations, and Weapons Danger Zone (WDZ) data can be obtained on the OSS SharePoint: <https://misawa.eis.pacaf.af.mil/35FW/35OG/35OSSWeaselHUD/DraughonRange/SitePages/Home.aspx>. Contact 35 OSS/OSO (DSN 226-9133) for questions. See **Figure 2** for typical range configuration.

Figure 2. Draughton Range Configuration.



2.5.1. Range Towers: North flank tower (N4052.887 E14123.330), located NE of main tower, will not be manned by contractor personnel when winds are 30 knots steady state or gusting at 35 knots or greater. Also, manual scores cannot be given under this condition. The main control tower (N 4052.083 E14122.745) is rated at 66 knots.

2.5.2. Conventional Target: Consists of a bullseye with concentric circles at 75 feet (22.86 meters) and 150 feet (45.72 meters) centered on the target (normally a shipping container, sea box, or conex van). It is located 4,030 feet (1228.34 meters) east/northeast of the main tower. Target coordinates are N4052.271 E14123.596 (WGS-84), elevation is approximately 16 feet.

2.5.3. High Explosive Incendiary (HEI) High Angle Strafe (HAS) Target: Consists of two orange sea containers aligned next to each other. The target is for High Angle Strafe with HEI ammunition only. Low angle strafe is not authorized on this target. Target coordinates are N4052.504 E14123.469. Unexploded 20MM HEI remain in the danger zone and ORM dictates only qualified EOD technicians or personnel escorted by EOD enter the target area.

2.5.4. JASDF (Rocket) Target: Located northeast of the conventional target. US forces are not authorized to employ any type of munitions on the JASDF target.

2.5.5. Strafe Pits: Panels 1 through 4 are designated for low angle strafe. Strafe Pit 1 coordinates are N4052.0309 E14123.1973. All strafe panels have a 2,000 foot foul line, identified by a line of orange barrels abeam the main tower. Strafe panels will not be available when steady state winds are greater than 20 knots or gusting greater than 25 knots. Low Angle Strafe is not authorized when ground is frozen due to ricochet hazard. Draughton Tower will notify aircrew of frozen conditions.

2.5.6. Tactical Target Array: Contact 35 OSS/OSK for current range configuration and coordinates. The tactical target coordinates are N4051.9220 E14123.6150. The tactical target is located at the middle of a group of tactical targets arrayed in a semi-circle or “puppy paw” layout.

2.5.7. Electronic Combat Range Equipment. See OSS SharePoint ([paragraph 2.5](#)) for current threat emitter layout and numbers.

2.5.7.1. Unmanned Threat Emitter (UMTE): The UMTEs replicate an SA-2 D, SA-2 B/F, SA-3 and SA-6. The emitters are directional and track aircraft based off of ACMI pod feeds. These emitters are independently targetable and controlled from the DBEARS control room on Misawa Air Base. The level of operator proficiency and acquisition time can be modified by coordinating with Draughton Range.

2.5.7.2. Radar Warning Receiver Low cost Threat Emitter (RWRLTE): The RWRLTE can simulate either an SA-3 acquisition or AAA radar. It is a directional system that is manually pointed and can cover a 30 degree sector of the sky.

2.5.8. Helicopter Landing Zones: See current OSS SharePoint for approved HLZs: <https://misawa.eis.pacaf.af.mil/35FW/35OG/35OSSWeaselHUD/DraughtonRange/Shared%20Documents/Forms/AllItems.aspx>.

2.6. **Range Restrictions** Pilots will use the most restrictive procedures, weather minimums, training rules, and emergency procedures found in flight regulations, TTPs, and range regulations for weapons employment on Draughton Range. The Draughton Range weapons impact zone is small, and the consequences of inadvertent or unintentional off-range employment are significant and *will negatively impact host nation relationships*.

2.6.1. Airspace: Draughton Range (R-130) is depicted in **Figure 3** as the red fan and is from SFC-23,000 feet MSL. R-130 is located within the Misawa Positive Control Area (PCA). This area is described as 2,000 feet AGL to FL200 bounded by coordinates N4059.17 E14107.28; N4059.17 E14120.78; N4053.17 E14129.78; N4051.08 E14130.00; N4049.17 E14124.78; N4049.17 E14107.28; to beginning. Misawa Approach Control or Sapporo Area Control Center must clear flights into the PCA. R-130 (with Misawa PCA) is available from the surface to 20,000 feet MSL during scheduled range periods. Airspace to 23,000 feet is available on request through Sapporo Area Control Center (UHF 315.3/VHF 140.1); pilots or the 35 OG Supervisor of Flying (SOF) must request the airspace to 23,000 feet from Sapporo Area Control Center. MAGNUM 3 airspace may be scheduled simultaneously with the aforementioned airspace, which extends the ceiling above the PCA to 24,000 feet MSL.

Figure 3. Misawa PCA and No Fly Areas.



2.6.2. Danger Areas (See [Figure 1](#)): Danger areas extend from the northern sea boundary to the southern sea boundary in a 2-mile arc for training rounds (e.g. BDU-33) and a 3-mile arc for inert heavy-weight ordnance. Boats and other watercraft are advised to avoid these areas when Draughton is “Hot.” Pilots will not drop ordnance on Draughton when boats or other watercraft are within the described danger area arcs, however, dry passes are authorized.

2.6.3. No-Fly Areas (See **Figure 3**): Over flight of the Draughon Range main tower (N4052.42 E14123.39) and north flank tower (N4052.43 E14123.33) is prohibited. Aircraft will avoid the Rokkasho nuclear power plant north of Draughon Range (N4058.5 E14121.0) laterally or by 5,000 feet vertically. The blue-roofed farms to the west of Draughon Range (N4054.08 E14119.03) and the piers to the northeast of the target (N4055.56 E14123.76) may not be overflown at low altitude.

2.6.4. Number of Aircraft: There will be a maximum of four aircraft in the day conventional pattern. With RCO and flight lead coordination, additional aircraft may be in the PCA and/or on Draughon Range and will be positively de-conflicted from each additional flight (see 2.7.1.2 on range entry, exit, and holding).

2.6.5. Ordnance and Pyrotechnics. Authorized ordnance and pyrotechnics include 30mm/25mm/20mm/5.56mm/7.62mm/50 cal target practice and tracer rounds, rockets equipped with inert warheads or spotting charge, and inert bombs not to exceed 2,000 pounds. Chaff and flares are authorized over water, once a clearing pass verifies that there are no watercraft within the confines of the range. Expenditure of heavyweight inert ordnance (MK-82 to MK-84 class ordnance) is only authorized on the tactical target. Dry passes may be accomplished simulating any munition as long as the munitions are mechanically safe, cannot be released from the aircraft, and that the passes do not overfly no-fly areas.

2.6.6. Weapon Deliveries: All deliveries will adhere to restrictions from the weapon danger zone (WDZ) for the specific weapon and attack located on the OSS SharePoint: <https://misawa.eis.pacaf.af.mil/35FW/35OG/35OSSWeaselHUD/DraughonRange/Shared%20Documents/Forms/AllItems.aspx>. Due to the small size of Draughon Range's impact area, deviations from the attack restrictions increase the risk that malfunctioning weapons fall off the range complex. All ordnance must be released to impact within the range boundary. Weapons should be armed "Hot" over water when possible. First run attacks are authorized given the flight has previously coordinated with the RCO, is in radio contact with the RCO, and no boats or watercraft are in the danger area. Dry passes and simulated attacks may be accomplished from any attack axis provided they do not overfly the no-fly areas. Local Misawa altimeter will be used unless updated by Draughon Tower.

2.6.6.1. Considerations for weapons deliveries: Ceiling must be 500 feet above the highest portion of the bombing pattern and 3NM of visibility with a discernable horizon. Aircrew must take all mitigating measures to ensure weapons fall within the impact area. All available means of positive target ID will be accomplished, to include visual, targeting pod, laser handoff, confirmatory communications, and/or coordinate read back. For general purpose deliveries aircrew must be tally/capture the target at release. Any high-drag weapon delivered low-drag must be hard-wired low-drag. For laser guided munitions and/or JDAM employment, aircrew must be tally/capture the target at release and throughout weapon time of flight. Ordnance will not be dropped or fired through overcast conditions. In addition, for dry loft/toss deliveries, pull-up through overcast conditions is prohibited. Buddy lase IAW MDS TTPs is authorized in VMC conditions, employment through the weather is not authorized even if the lasing aircraft is below the weather. All weapons impact must be verified visually, via TGP, or by the RCO.

2.6.7. Inert Precision Guide Munitions Restrictions: Draughton Range must be notified of intent to drop inert LGBs and JDAMs NLT 24 hours and 72 hours respectively. All precision guided munitions (PGM) will be employed on the tactical target. To preclude inadvertent releases, pilots will minimize time with a hot pickle button to the maximum extent possible. Delay arming hot as long as practical based on target ID, delivery, and pilot technique. Pilots will comply with section 2.11 of this document, Laser and IR Marker Operating Procedures.

2.6.7.1. Inert LGB Restrictions: First run attacks are authorized with inert LGBs. Pilots will coordinate with the RCO to have the RCO clear the range and danger areas prior to a first run attack. If RCO cannot clear the range, a clearing pass will be accomplished either visually or using TGP. This may be done on IP to target run-in prior to weapons release. Pilots may delay lase or continuous lase LGBs. The lasing aircraft for all LGB deliveries must confirm proper laser code set and be capture target prior to dropping aircraft release; the dropping aircraft must verify laser off and proper impact point prior to release by all available means (coordinate verification, targeting pod identification, and/or visual identification). Pilots may employ inert LGBs on the tactical target without terminal laser guidance (i.e. system delivery on TAC target coordinates, continuously computed impact point (CCIP) deliveries, etc.). No personnel will move between the range admin buildings/Navy Research Lab complex and the main tower complex when aircraft are established on the range with the intent to drop precision laser guided munitions.

2.6.7.1.1. Authorized LGB deliveries include: Self lase. Buddy lase with dropping aircraft releasing bomb on coordinate (BOC) following coordinate verification, releasing visually while capture target, or releasing via SPI slew with valid laser ranging. Ballistic/visually while capture target with no terminal guidance.

2.6.7.1.2. Unauthorized LBG deliveries include: Bad system and/or manual deliveries. Buddy lase with terminal guidance provided by a ground laser designator. Buddy lase with dropping aircraft releasing on another aircraft's SPI/Datalink or releasing via SPI slew with passive/training/no laser ranging.

2.6.7.2. Inert JDAM Restrictions: First run attacks are authorized with inert JDAMS. Pilots will coordinate with the RCO to have the RCO clear the range and danger areas prior to a first run attack. If RCO cannot clear range, a clearing pass will be accomplished either visually or using TGP. This may be done on IP to target run-in prior to weapons release. If aircraft are employing on self-generated coordinates, pilots must comply with AFTTP3-1 Shot Kill. Attack headings published in the WDZs are for aircraft magnetic heading at release, NOT weapon impact heading. Aircraft must be pointing at the target at release (no offset) to ensure the weapon flies direct from release point to the target. In the F-16, zero will be entered into the impact azimuth to force the weapon to fly a direct flight profile. The only authorized location

for all range personnel during JDAM operations is either inside or within 50 feet of the flank tower. Military TACP (FIST, JFO, SOF, etc.) and their support personnel may be located in observation positions away from the flank tower but must adhere to JFIRE minimum safe distances. RCOs are responsible for ensuring all range personnel (non-TACP) are either off the Draughton Range complex, inside buildings at range gate, or located within 50 feet of the flank tower during JDAM operations.

2.6.7.2.1. For JDAM BOC deliveries, verify coordinates in weapon/system match TAC target coordinates. Prior to delivery, read coordinates from weapon/system to RCO/JTAC. RCO/JTAC will ensure coordinates being read match tactical target coordinates and state “good readback”. Fighters are not be allowed to drop on another aircraft’s SPI/Datalink.

2.6.7.2.2. For JDAM BOT (Relative Targeting/SPI-Slew) deliveries, pilots will be capture target in the targeting pod FOV. The radio call of “capture target” must be made to the RCO/JTAC prior to weapon release.

2.6.8. HAS: There are two permitted targets for live HAS – the tactical target and HEI HAS target. Electronic scoring is not available. RCOs will give general information based on visual impact. The puppy paws will not be targeted for strafe. The HEI target is for High Angle Strafe with HEI ammunition only. Pilots/crews will ensure that guns/cannons are pointed away from inhabited areas prior to selecting Gun/Master Arm or mechanically arming guns/cannons.

2.6.9. Low Angle Strafe (LAS): Live LAS is only permitted on the scoreable strafe pits 1 through 4. Flow for LAS is a left-hand pattern. Aircraft executing live low angle strafe (less than or equal to 15 degrees) will pass across the fluorescent orange run-in tires located on the range boundary. Minimum recovery altitude is IAW applicable AFIs/NATOPS regulations but no lower than 75 feet AGL, whichever is higher. Pilots/crews will ensure that guns/cannons are pointed away from inhabited areas prior to selecting Gun/Master Arm or mechanically arming guns/cannons. LAS is permitted on the tactical target array only from dry passes under flight lead control.

2.6.9.1. Live LAS will not be conducted while Combat Survival Training is taking place on Draughton Range.

2.6.9.2. Any fighter/attack aircraft that ejects expended cartridges/links will use a minimum dive angle of 12 degrees for LAS and will delay firing until passing the first pair of tires to ensure all spent cartridges fall within the confines of Draughton Range. Helicopters will ensure all spent cartridges fall within R-130.

2.6.9.3. Helicopter strafe passes on the scoreable strafe lanes must comply with all LAS restrictions except the 12 degree minimum dive angle and minimum cease fire ranges. Helicopter LAS on the tactical target array is permitted as long as the gun-to-target line is between and including 085 to 105 degrees magnetic.

2.6.9.4. Strafe panels will not be available when steady state winds are greater than 20 knots or gusting greater than 25 knots. Low Angle Strafe is not authorized when ground is frozen due to ricochet hazard. Draughton Tower will notify aircrew of frozen conditions.

2.7. Range Entry, Exit, and Holding

2.7.1. Aircraft Entry: Aircraft must be cleared into the PCA through RAPCON. RAPCON may delegate the PCA to Draughon when R-130 is activated. However, RAPCON may assume control at any time. RAPCON also may delegate PCA to SABRE when appropriate. Aircraft must be cleared into Draughon Range airspace (R-130) by the RCO. Draughon has no radar; VFR rules apply to R-130. Minimum altitude for a spacer pass is 500 feet AGL.

2.7.1.1. Deconfliction: In order to de-conflict range entries and departures, entering flights will remain at or below 3,000 feet MSL until “feet dry” inbound (east shore of Mutsu Bay) and westbound departing flights will exit above 4,000 feet MSL. If flights departing the range westbound are unable to climb above 4,000 feet MSL under VMC, they will deconflict their departure with flights holding for range entry on range frequency. Reference Area Planning (AP/3) for complete information on Misawa PCA.

2.7.1.2. Alternate Range Entry: Range entry from the east direct to downwind is permitted, provided no aircraft are on the range. A tactical entry to a hot-delivery on either the conventional or tactical targets requires RCO approval.

2.7.1.3. Helicopters are authorized to enter Draughon Range airspace from any direction. Entry direction will be cleared with the RCO prior to entry to de-conflict with scheduled fixed wing range periods. Helicopters will complete a clearing pass along and over the range boundaries before live fire operations.

2.7.2. Exit: Prior to departing Draughon Range airspace, pilots must contact Misawa Approach. Once identified by Misawa Approach and recovering to Misawa Air Base, exit Draughon airspace heading Eastbound for RWY 28 and Westbound for RWY 10. Use caution for numerous aircraft operating in Misawa Air Base’s VFR and IFR traffic patterns; downwind for both of these patterns is approximately 5 nautical miles south of the Misawa Air Base PCA. Aircraft exiting Draughon Range but not recovering at Misawa should hold in Draughon Range airspace until Misawa Approach has provided departure/clearance instructions and traffic advisories as necessary.

2.7.3. Holding (See [Figure 4](#)): Visual Meteorological Conditions (VMC) holding is on the MIS 320/20, left hand turns, 10NM legs at 3500 feet (over Mutsu Bay north of Noheji). If unable to hold VMC, contact Misawa RAPCON on UHF 317.8 for clearance to hold in IMC with a block altitude.

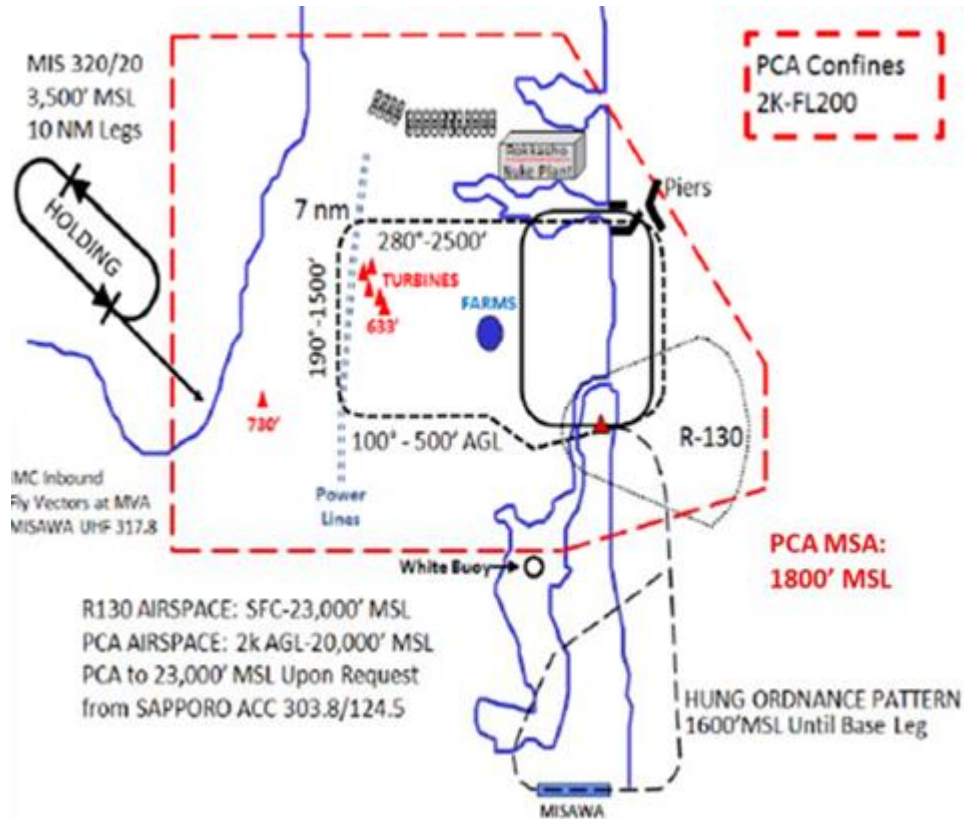
2.8. Procedures The following procedures apply to all training on Draughon Range:

2.8.1. Manning: An RCO and two range technicians are required for all scheduled Class A conventional operations to include dry passes. Electronic Warfare operations require an RCO for voice communications and one Electronic Warfare Technician.

2.8.2. Operational Communications: If an RCO pre-briefing has not been accomplished, the flight lead will check in with call sign, tail numbers, and planned events. The range pre-brief should also include ordnance to be used, type of attack, and number of releases per aircraft per pass, as well as targets to be used. Aircraft will make voice reports in accordance with applicable regulations. Generally, these reports will indicate the aircraft's pattern, position, intention, and armament system status (safe/armed).

2.8.3. Patterns (See [Figure 4](#)):

Figure 4. Draughton Range Patterns and Hung Ordnance Routing.



2.8.3.1. Curvilinear and Pop Patterns: Left-hand turns remaining clear of populated areas. To preclude inadvertent releases, pilots will minimize time with a hot pickle button/trigger to the maximum extent possible. Do not select CCIP/strafe sub-modes until just prior to initiating roll-in to final. Delay as long as practical based on target ID, delivery, and pilot technique. Pilots are authorized right-hand wheel patterns for close air support (CAS) training following coordination and clearance from the RCO.

2.8.3.2. Pop patterns will only be flown to the tactical target to avoid overflight of the main tower.

2.8.4. Recovery/Safe Escape: Pilots will accomplish the appropriate safe escape maneuver for the event attempted and specific aircraft while avoiding overflight of range towers.

2.8.5. Hung Ordnance Procedures (See [Figure 4](#)): If VMC, fly the hung ordnance pattern at 1,600 feet MSL until on base leg. If IMC, declare Hung Ordnance and follow vectors.

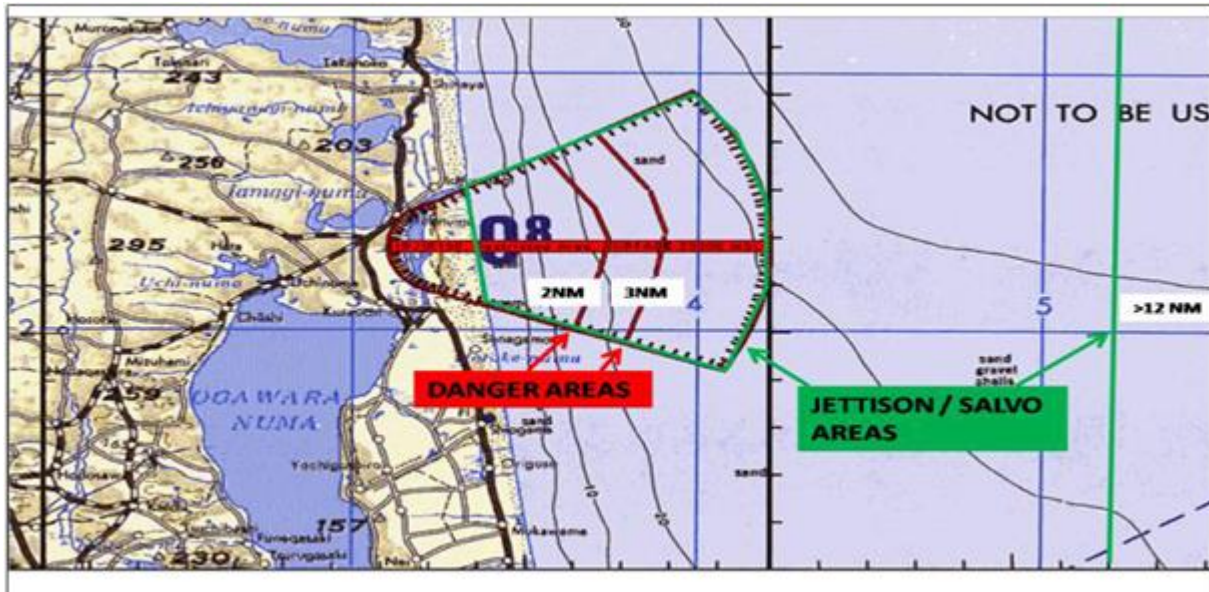
2.8.5.1. Aborting a Pass: Pilots aborting a “hot” pass will state reason after completing safe escape maneuver to preclude any false hung bomb actions.

2.8.5.2. No Spots: If the RCO calls a “no spot,” the aircraft attempting to drop must remain over water and attempt to visually confirm bomb status. If overland when notified of a “no spot,” avoid populated areas and proceed over water.

2.8.5.3. If the bomb cannot be visually confirmed as expended or secure, consult the Misawa Supervisor of Flying (SOF) and the 35 FW Pilot’s Guide and consider either jettisoning the hung bomb IAW [para. 2.8.5.4](#) and/or ceasing further deliveries and flying the Misawa Air Base hung ordnance pattern. Aircraft may continue to drop after the hung bomb condition is resolved. Aircraft with hung ordnance shall inform the RCO and the SOF of intentions and contact Misawa Radar to report hung ordnance before leaving range airspace.

2.8.5.4. Jettison Area: Located over water within the confines of R-130 or beyond 12 NM from shore (international waters) below 5000 feet AGL. Clear the surface area for boats and watercraft before jettison. See [Figure 5](#)

Figure 5. Draughton Range Danger and Jettison Areas.



2.8.5.4.1. Jettison Notification Procedures: The pilot shall inform Misawa RAPCON (UHF 317.8) of the intent to use the jettison area. Radar vectors or flight-following to the area shall be provided by RAPCON on request. RAPCON shall not tell the pilot when to jettison.

2.8.5.4.2. Jettison Procedures: Aircrews shall depart MIS TACAN 360 radial at 10 DME at 2,000 feet AGL (or assigned) on a heading of 090 degrees. 35 FW pilots will refer to the Selective-Jettison procedures in T.O. 1F-16CM-CL-1.

2.8.5.5. Hung Bombs: With no other malfunctions, hung practice bombs (e.g. BDU-33) do not constitute an emergency. Hung inert heavyweight ordnance and hung/jammed guns do constitute an emergency and will be handled accordingly.

2.8.5.6. Hung Bomb Route: Hold “feet wet” and contact the Misawa Supervisor of Flying (SOF, callsign “Cardinal,” VHF 122.8 or UHF 283.3) prior to RTB. Execute a hung ordnance recovery. Fly the routing depicted in **Figure 4** when VMC at 1,600 feet and avoid populated areas to the maximum extent possible. For Runway 10 recoveries, proceed SW over Lake Ogawara and enter a left base for a straight-in landing. For Runway 28, remain over the ocean and recover to a straight-in landing. If IMC, declare hung ordnance and follow Misawa RAPCON vectors. Advise controllers to attempt to keep you clear of populated areas to the maximum extent possible.

2.8.6. Unintentional/Inadvertent Release: Every effort shall be made to account for all ordnance delivered.

2.8.6.1. Pilot Actions: Pilots shall immediately report any incident involving actual or possible off-range releases (inadvertent or unintentional) to the RCO. Pilots will attempt to mark the spot of the release and the probable impact area.

2.8.6.2. RCO Actions: When notified of a possible off-range release, including a planned or emergency jettison, the RCO shall perform emergency checklist procedures and will immediately relay all pertinent information to the SOF and 35 FW Command Post (35 FW/CP). The RCO will relay information to 35 OG/CC as soon as possible. Command Post will notify the proper authorities immediately. Additionally, RCOs will notify the 35 FW/CP of on-range releases resulting in injury or damage to equipment and property.

2.9. Night Range Procedures Night operations are defined as the time from official sunset to sunrise. All day rules apply to night operations as well as the following restrictions:

2.9.1. Night Weather: Minimum night visibility is 5NM. Helicopters are exempt from altitude, angle and safe escape restrictions and require only 2NM visibility.

2.9.2. Non-Night System Equipped Aircraft: Maximum of 3 aircraft may be in the conventional range pattern.

2.9.2.1. Patterns: Patterns will be a rectangular box or standard radar pattern. Minimum altitude and spacing for night operations is IAW AFI 11-214. Pilots will drop only on the conventional target. Max planned dive angle is 45 degrees. Minimum recovery altitudes for dive angles are 4500 feet AGL >35 degrees, 2000 feet AGL 20-35 degrees, 1000 feet AGL <20 degrees. Pilots will accomplish climbing safe escape maneuvers. Pilots will not attempt to air score their bombs. Normally, flights should rejoin over the range due to the lack of horizon references to the east (over the ocean). Night rejoins should be above 3500 feet MSL, weather permitting. Minimum airspeed for dry loft passes is 300 KIAS.

2.9.2.2. Lighting: Non-night system equipped aircraft will not drop without operational overt lighting. Pilots will ensure the target is positively identified prior to release. Pilots will ensure position lights are fully illuminated and strobes/ beacons are on.

2.9.2.2.1. Floodlights are positioned at the 5, 6, and 7 o'clock position outside the outer circle of the conventional target and are aimed at the conventional target. The total length of the run-in lights is 2100 feet; all lights do not need to be operational but enough must be operational to ensure aircrew have a clear run-in line to the conventional circle. The RCO has final judgment concerning the appropriate number of functional run-in lights.

2.9.3. Night System Equipped Aircraft: Night systems are defined as Night Vision Goggles (NVG), Gen III Helmet Mounted Display System (HMDS), LANTIRN/LITENING/SNIPER/NAV FLIR/ATFLIR targeting pods, and/or Electro-Optical Targeting System (EOTS); infrared Maverick alone does not constitute a night system. Aircraft equipped with night systems will follow non-night system rules while on the range at night with the following exceptions:

2.9.3.1. Maximum Number of Aircraft: Maximum of 4 aircraft may be in the conventional pattern. With RCO and flight lead coordination, additional aircraft may be in the PCA and/or range with positive de-confliction from each additional flight.

2.9.3.2. Lighting: No artificial illumination is required of the target area; however, pilots will ensure they are able to positively identify the target prior to weapons release. External lighting will be sufficient to allow the RCO to track all flight members within the pattern. The RCO has the authority to direct which lights aircraft will use while on range. All aircraft on range shall mimic light settings as directed by the RCO.

2.9.3.3. Patterns: Minimum spacing is the same as day procedures. The tactical target array is available for use at night. Scoring can be accomplished if munitions contain a spotting charge. Targeting pod equipped aircraft will not go below altitudes specified in MAJCOM/MDS regulations.

2.9.3.4. Strafe: HAS is authorized only for fixed wing aircraft on the tactical target. Helicopters may low angle strafe on the tactical target array (firing IAW [para. 2.6.9.3](#)).

2.9.3.4.1. HAS is also allowed on the HEI HAS target. (HEI only- no TP rounds authorized).

2.10. Aircraft Emergency and Radio Failure Procedures

2.10.1. Radio Failure (NORDO): The NORDO aircraft will safe all switches and should maintain pattern spacing. The NORDO aircraft will fly near the main tower, rocking its wings. On downwind, attempt contact on the Draughon Range back-up frequency. If contact is made, the RCO will have the rest of the flight switch to the back-up frequency. If radio contact is not made, remain VFR and fly 1,000 feet above the highest pattern briefed rocking wings on final. Fly straight through for each subsequent pass. Squawk 7600 and recover to Misawa Air Base. The RCO will notify Misawa RAPCON.

2.10.2. Safety: All flight leads are responsible for the overall safe conduct of the flight. The RCO is responsible for ground safety, and acts as safety observer for all range operations. The flight lead should pay special attention for boats, which may be in the danger area offshore east of the range, or in the channel west of the range. The RCO will ensure all safety precautions contained in this supplement are adhered to and report any violation to the proper authorities in accordance with current regulations.

2.10.3. The RCO may call “KNOCK IT OFF” at any time during missions for safety of flight.

2.10.4. Aircraft Crashes: Range operations will be terminated by the RCO if an aircraft crashes on or near the range complex. The RCO will close the range and direct all aircraft to break out of the pattern. If the crash is in an inaccessible or unknown region, RESCAP aircraft may be requested to stay in the pattern, attempt to pinpoint the crash location, and provide assistance to direct rescue forces to the scene. Misawa RAPCON and Command Post will be contacted by the RCO with accident information.

2.10.5. Controlled Bailout: Controlled bailout is over Draughon Range (MIS 360/10 or vectors from RAPCON if IMC) on an easterly heading at or above 2000 feet MSL.

2.10.5.1. Aircrew will notify SOF of intentions to proceed with controlled bailout. Following SOF notification, SOF and/or aircrew will notify Draughon Range RCO of intentions to proceed with controlled bailout.

2.10.5.2. Following Range notification, the RCO will activate the EMERGENCY ACTION CHECKLIST.

2.11. **Laser and IR Marker Operating Procedures** All laser and IR marker procedures at Draughon Range are IAW AFOSH Standard 48-139 (which imitate those of the American National Standards Institute (ANSI) Z136.1, American National Standard for Safe use of Lasers), AFI 11-214, Air Operations Rules and Procedures, and AFMAN 13-212v1. (Note: IAW AFI 11-214 the use of the “combat” laser mode of a laser designator is restricted to laser certified ranges. Off-range laser emissions are not authorized unless in the “eye-safe” training frequency).

2.11.1. Range Personnel:

2.11.1.1. IAW AFMAN 13-212v1, range personnel will have a baseline eye exam before working in the laser hazard environment.

2.11.1.2. IAW AFMAN 13-212v1, during laser operations, all range personnel in the Laser Surface Danger Zone (LSDZ) will wear laser eye protection of appropriate optical density. The current Consultative Letter authorizes laser eye protection for range personnel.

2.11.1.3. Lasers will not be operated without the approval of the Laser Safety Officer (LSO) and the RCO.

2.11.1.4. If standing water is present in the LTA, all personnel observing operations shall wear laser eye protection appropriate to the system specification requirements listed in the current consultative letter.

2.11.2. Combat (Non Eye-Safe) Laser Use:

2.11.2.1. Authorization: IAW AFMAN 13-212v1 and AFOSH Standard 49-139, Draughton Range (R-130) is authorized for laser use IAW provisions of Consultative Letter (CL), Laser Safety Survey, Draughton Training Range, Misawa AB, Japan. Reference 35 OSS SharePoint for further details.

2.11.2.2. IAW AFMAN 13-212v1, the RCO will acknowledge termination and will record the start and stop time of range periods when laser operations take place.

2.11.2.3. Ground Lasers: IAW 13-212, ground lasers will not be directed at targets or hazard areas where the laser beam will terminate with an ocular hazard beyond the range boundary unless the laser will exclusively transit SUA below FL600 and terminate in space without affecting non-participating satellites.

2.11.2.3.1. A complete listing of allowable ground based laser systems authorized on Draughton Range (and associated restrictions) can be obtained by referencing the CL and can be received by contacting 35 OSS/OSK or 35 OSS/OSO(R).

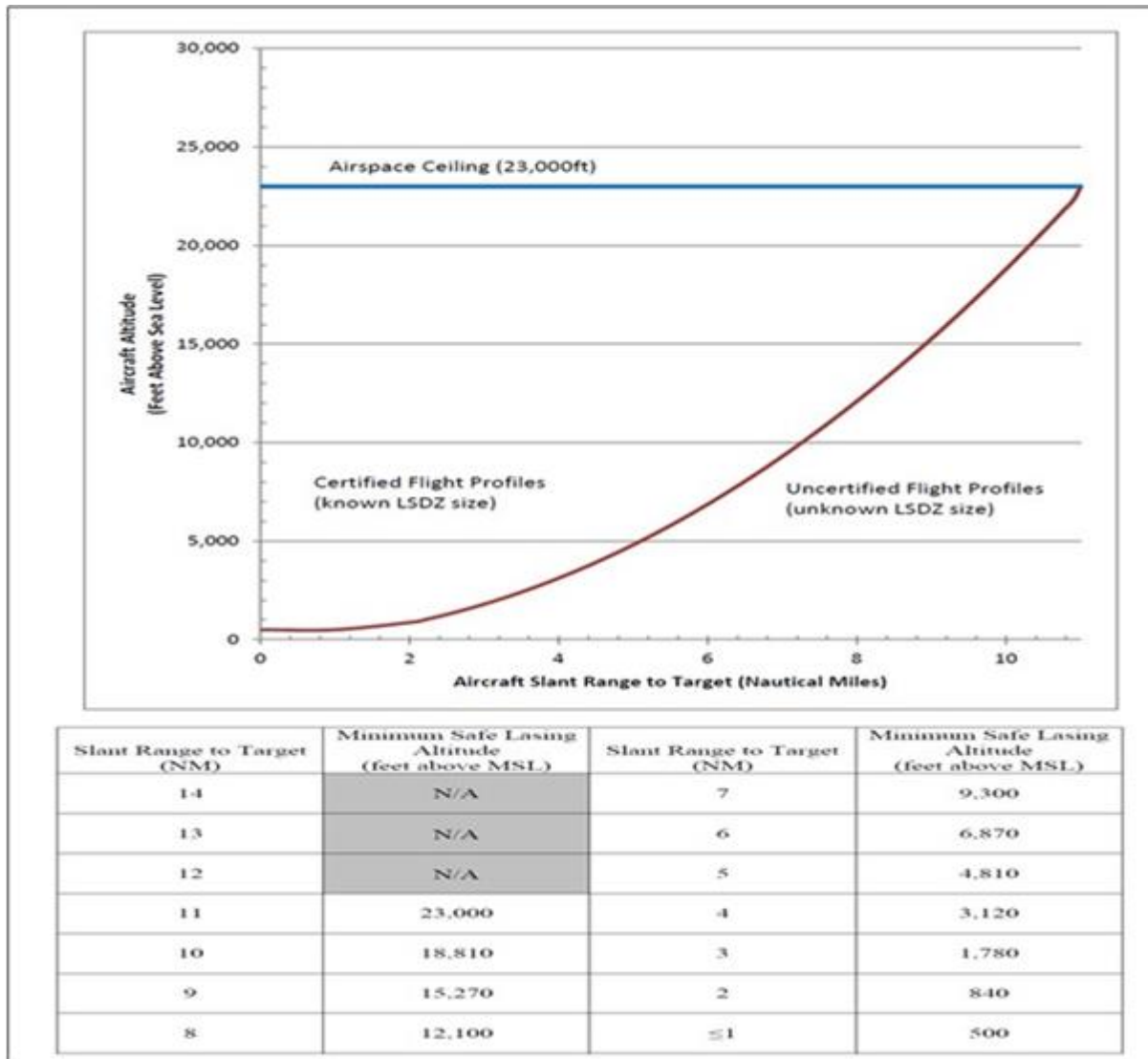
2.11.2.4. Airborne Lasers: Airborne lasers authorized for use on Draughton Range include the AN/AAQ-28 LITENING II, AN/AAQ-33 ATP SNIPER XR, the ATFLIR (F/A-18), Electro-Optical Targeting System (F-35), and the AN/AAQ-14 LANTIRN targeting pod. A complete listing of authorized laser systems can be obtained by referencing the OSS SharePoint.

2.11.2.4.1. Prior to using airborne non eye-safe lasers on Draughton Range, non-Misawa based pilots will review the current Draughton Range laser training brief within 72 hours of conducting laser operations at Draughton Range. Laser System Safety Officers/Weapons Officers should contact 35 OSS/OSK (Wing Weapons) or 35 OSS/OSO(R) via email, prior to viewing the briefing, for updates to the training brief.

2.11.2.4.2. Ensure Draughton Range has minimum 24 hours prior notice of intent to use lasers. Exception for ship-based users can be made on a case by case basis.

2.11.2.4.3. Laser users will establish two-way radio contact and obtain clearance from RCO/Laser Safety Officer (LSO). The LSO will determine current environmental suitability for employment of lasers and ensure the Laser Surface Danger Zone (LSDZ) is clear of personnel. Additionally, the LSO will advise the user if there is standing water present in the laser target areas. See [Figure 6](#)

Figure 6. Laser Surface Danger Zone.



2.11.2.4.4. General Restrictions:

2.11.2.4.4.1. Users should comply with Joint Pub 3-09.1 and Joint Pub 3-09.3 on procedures for laser designation and CAS.

2.11.2.4.4.2. Calculations used to determine allowed buffer angles and LSDZs assumes ocean waterways, out to three miles, are free of vessels due east of the range coastline. Therefore, range personnel and users must take all reasonable precautions to ensure that the ocean waterways (as described) are clear of vessels prior to employing airborne non eye-safe lasers.

2.11.2.4.4.3. Laser operations must immediately cease if unauthorized personnel are observed in the LSDZ, vessels are determined to be within 3 miles of the coastline, equipment malfunction is observed, target is lost in FOV, or any time laser safety cannot be assured.

2.11.2.4.5. Laser Targets and Target Areas:

2.11.2.4.5.1. All targets are approved for combat laser usage from all headings.

2.11.2.4.5.2. Prior to arming combat laser, ensure the range tower has granted clearance for combat laser on your target set.

2.11.2.4.5.3. All headings are available (0-360 degrees).

2.11.2.4.5.4. Lasing above 23,000 feet AGL or below 1,000 feet AGL is not authorized.

2.11.3. IR Pointer (“Marker”) Employment: IR pointers referenced in this section are laser command pointers (LCPs) (ACP-2A/2B, GCP-1A/1B/1C, LP-1000, IZLID 100P-A1), ATPs (LITENING, SNIPER etc.), and MTS (MQ-1/9). For simplicity, a reference to “IR pointer” is a reference to all devices previously listed.

2.11.3.1. IAW 11-214, Laser Eye Protection (LEP) with side protection must be worn when employing a LCP in the cockpit, where a reflection hazard exists, or during a ground test.

2.11.3.2. IAW 11-214, aircrew will notify ground personnel and other aircraft in the working area prior to employing IR pointer. When required, ground personnel will ensure proper eye protection is in place.

2.11.3.3. Minimum Aircraft To Aircraft Slant Ranges: IAW AFI 11-214, fixed-wing aircraft will adhere to the following minimum slant range separation between IR pointer employing aircraft and other aircraft (assumes no LEPs and no magnifying devices are being used in other aircraft): 1,000 feet slant range for LCP (ACP-2A/2B, GCP-1A/1B) and LITENING ATP, 2000 feet slant range for MTS and Sniper XR ATP, 3,000 feet slant range for LCP (GCP-1C, LP-1000, IZLID 1000P-A1).

2.11.3.4. Minimum Employment Altitudes and Slant Ranges: IAW AFI 11-214, if all personnel in the area to be designated are wearing LEPs, the minimum IR pointer employment altitude is 1,000 feet AGL for fixed-wing aircraft. In this case, there is no minimum altitude for rotary-wing aircraft LCP employment provided the LCP is not pointed toward any aircraft, person, or specular surface (i.e. water, glass, mirrors, reflecting surfaces, etc.).

2.11.3.4.1. IAW AFI 11-214, if non-LEP equipped personnel are in the area to be designated and it is verified that no image-magnifying devices (binoculars, telescopes, etc.) are in use, minimum IR pointer employment slant range is 3,000 feet. If slant range cannot be determined, the minimum employment altitude is 3,000feet AGL.

2.11.3.4.2. IAW AFI 11-214, if non-LEP equipped personnel are in the area to be designated and unable to ensure the absence of personnel using image-magnifying devices (binoculars, telescopes, etc.) in the area to be designated, IR pointer employment is restricted as follows:

2.11.3.4.3. LCP (ACP-2A/2B, GCP-1A) and LITENING ATP: The minimum slant range is 10,000 feet. If slant range cannot be determined, the minimum employment altitude is 10,000 feet AGL.

2.11.3.4.4. MTS: The minimum slant range is 14,000 feet. If slant range cannot be determined, the minimum employment altitude is 14,000 feet AGL.

2.11.3.4.5. Sniper XR ATP: The minimum slant range is 24,000 feet. If slant range cannot be determined, the minimum employment altitude is 24,000 feet AGL.

2.11.3.5. IAW AFI 11-214, aircrew will make an “IR Pointer Safe” call when IR pointer use is terminated for the mission and the safety cap (handheld LCP only) is in place.

2.11.4. Laser Safety And Reporting: IAW AFOSHSTD 48-139, every incident involving a suspected laser radiation exposure to personnel covered by AFOSHSTD 48- 139 (e.g. military and DoD civilian personnel) will be investigated and documented. (NOTE: Aircrew who receive a laser exposure from either friendly or hostile sources should immediately report to the Flight Surgeon’s Office (FSO). The FSO will manage and coordinate the event with the MAJCOM, USAFSAM/AFC, 311 HSW/YA, and AFRL as appropriate).

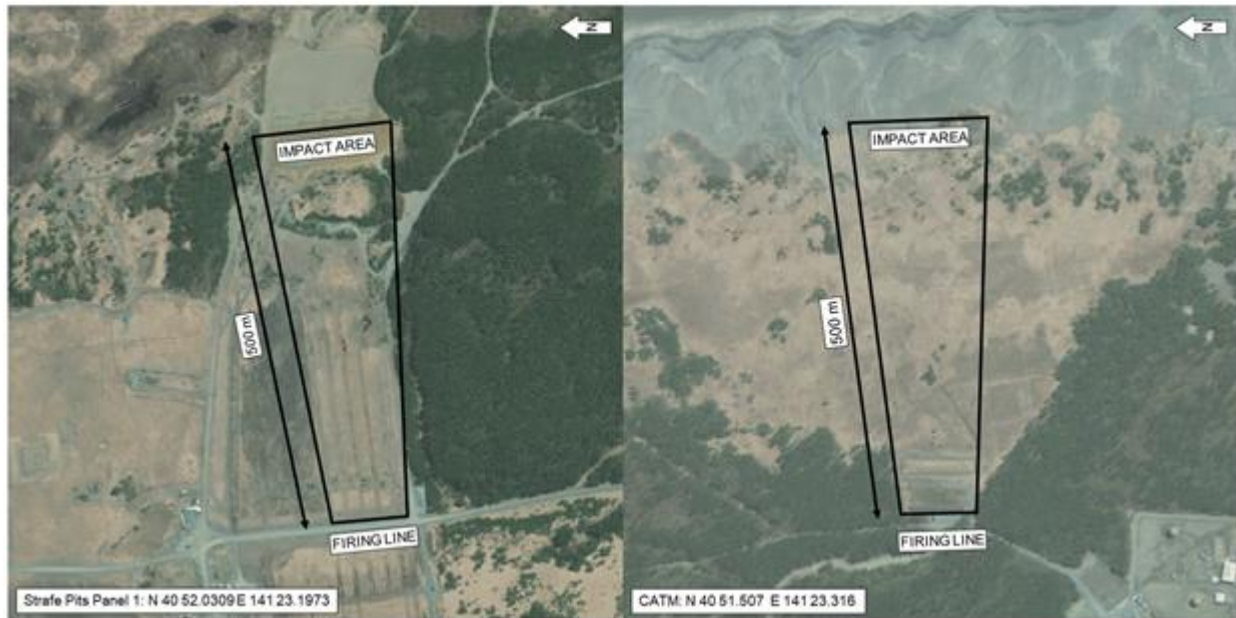
2.11.4.1. Individuals exposed will seek medical care without delay at their host medical unit emergency treatment facility. THE LASER HOTLINE (1-800-473-3549, this is a 24/7 service number, please refer to local dialing procedures) SHOULD BE CALLED ASAP BECAUSE IMMEDIATE INDICATED CARE IS CRITICAL. The immediate supervisor will promptly notify the Unit Commander and Safety Officer or LSO and the Bioenvironmental Engineer. The Bioenvironmental Engineer will notify Wing Safety, Public Health services, Staff Judge Advocate, and MAJCOM medical staff immediately. No public releases of information concerning laser or IR Marker operations will be made without 35 OSS/OSK, 35 FW/PA, NAF Liaison, 35 FW/CC coordination, and USFJ/service-specific release authorities.

2.12. Ground Operations/Training

2.12.1. Combat Arms M203 Grenade Launcher Training Procedures:

2.12.1.1. Only the approved locations will be utilized for M203, Grenade Launcher Training (see [Figure 7](#)).

Figure 7. M203 Training Sites.



2.12.1.2. Security Forces will be responsible for scheduling Draughon Range times for M203, Grenade Launcher Training through 35 OSS/OSOS.

2.12.1.3. Security Forces will be responsible for environmental clean-up of the M203 Grenade Launcher Training areas to include all expended rounds as well as targets used during training.

2.12.1.4. Security Forces will respond to all RCO's/Safety Officer instructions/direction.

2.12.1.5. CATM personnel will be trained as unescorted personnel for the safety of their trainees (see [paragraph 1.7.1.2](#)).

2.13. C-130 Procedures

2.13.1. Establish a location for the drop zone with range management prior to the start of operations. Reference the 35 OSS SharePoint for current authorized drop zones: <https://misawa.eis.pacaf.af.mil/35FW/35OG/35OSSWeaselHUD/DraughonRange/Shared%20Documents/Forms/AllItems.aspx>

2.13.2. Due to environmental conditions, alternate drop zone locations may be approved for operations by the RCO.

2.13.2.1. It is the Airlift Squadron's responsibility to retrieve loads. However, radios, weather data, and 4-wheel drive vehicle support can be coordinated with range personnel. Do not attempt to go beyond the Range Tower without a 4-wheel drive vehicle and familiarity with Draughon Range terrain.

2.13.2.2. Use caution when retrieving loads. Bomb craters may make night retrieval difficult or dangerous.

2.13.2.3. For night drops, loads should be marked with numerous lights to ensure recoverability.

2.13.2.4. If any load, including Standard Airdrop Training Bundles (SATBs) impacts off Draughon Range, notify the RCO immediately. The RCO will notify the 35 FW/CP (226-9899), 374 AW/CP (225-2536), and the Mission Commander as soon as possible. Every effort will be made by the Combat Mobility Element (CME) team to retrieve all off-range drops. Results of the search will be forwarded to the Drop Zone Control Officer (DZCO) and range operations personnel. In the event of personal or property damage, loads will be undisturbed pending a mishap investigation.

2.13.2.4.1. User accepts responsibility for damage to equipment and property.

2.13.2.4.2. High winds are common at Draughon Range. Aircrews must monitor winds closely to ensure airdrops are conducted within limits.

2.13.2.5. Avoid Shimokita range located along the northeastern coast of Honshu. Altitudes vary but can be as high as FL230. This range is activated by Japanese class II NOTAMS and is not covered in the USAF NOTAM system. Coordinates can be found in **Table 1**.

Table 1. Shimokita Range Coordinates:

N4121.52	E14127.33	N4116.22	E14124.68	N4114.27	E14124.50
N4114.27	E14123.73	N4121.52	E14126.08	N4115.22	E14125.16
NOTE: Shimokita (Ground-to-Air, Ground-to-Ground Range) is operated by JASDF, normally during the summer months, between 0800-1700L. Contact Misawa Base Operations to determine if the range is active.					

2.13.2.6. Beware of the Draughon Range strafe targets which look like Raised Angle Markers (RAMs).

2.13.3. IMC Airdrop Procedures documents can be found on the OSS SharePoint: <https://misawa.eis.pacaf.af.mil/35FW/35OG/35OSSWeaselHUD/DraughonRange/Shared%20Documents/Forms/AllItems.aspx> and are IAW the following agreements:

2.13.3.1. Memorandum of Understanding Among USAF 36th Airlift Squadron (36 AS), 474th Operations Support Squadron (374 OSS) 35th Operations Support Squadron (35 OSS), and Japan Air Self-Defense Force (JASDF) Misawa Air Traffic Control Squadron Concerning Procedures for C-130 Instrument Meteorological Conditions (IMC) Air Drop Training.

2.13.3.2. Operations Letter Between 35th Operations Support Squadron (35 OSS) and Japan Air Self Defense Force (JASDF) Misawa Air Traffic Control Squadron dated 15 Jun 2015.

2.13.3.3. ARA Draughon DZ revised 30 Jan 2017.

2.13.4. IMC Drop Altitude: Plan minimum IMC drop altitudes at 500 feet above the highest man-made obstacle or terrain feature and spot elevation or 400 feet plus one basic contour interval above the highest depicted basic terrain contour, whichever is highest, within 3 NM either side of the run-in centerline from drop zone (DZ) entry point to DZ exit point. Use the operational minimum drop altitudes in AFI 11-231, Computed Air Release Point Procedures if higher. Instrument Flight Rules (IFR) drops and low level routes must comply with Federal Aviation Administration (FAA) exemption 4371C.

2.13.5. IMC: Aircraft will be flown at least 2,000 feet (mountainous terrain) above the highest contour elevation, man-made obstacle, or spot elevation within 10 NM of route centerline.

2.13.5.1. The computed air release point (CARP) should fall well east of the Range Tower and inside of R-130 for airdrops using the 070-110 degrees MC run-in. To avoid the possibility of airdrops on private property, do not drop if the CARP does not meet these criteria.

2.13.5.1.1. DZ axis is limited to 070-110 degrees M and 250–290 degrees M

2.13.6. Hung Load/Salvo Procedures (See [Attachment 2](#)): For 090 or 115 degrees run-ins, maintain drop altitude and DZ heading until over the ocean; for 270 degrees run-in, breakout and turn left, maneuver east of the coast over the water until ready to Salvo. Salvo over the water, within R-130, clear of any ships and notify the RCO prior to, and after Salvo procedures are accomplished.

KRISTOPHER W. STRUVE, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFMAN 13-312v1 22 June 2018, Range Planning and Operations

AFI 11-214, Air Operations Rules and Procedures, 14 Aug 2012, 23 Mar 2016

AFOSHSTD 48-139, Laser and Optical Radiation Protection Program, 25 Jul 2012

Adopted Forms

AF Form 847, Recommendation for Change of Publication, 22 Sep 2009

Abbreviations and Acronyms

BOC—Bomb on Coordinates

BOT—Bomb on Target

DZ—Drop Zone

EOD—Explosive Ordinance Disposal

FOV—Field of View

HAS—High Angle Strafe

HEI—High Explosive Incendiary

IRSSS—Improved Remote Strafe Scoring System

LAS—Low Angle Strafe

LCP—Laser Command Pointer

LEP—Laser Eye Protection

NOTAM—Notice to Airmen

NVG—Night Vision Goggles

ORM—Operational Readiness Management

PCA—Positive Control Area

PGM—Precision Guidance Munitions

QAE—Quality Assurance Evaluator

RAPCON—Radar Approach Control

RCO—Range Control Officer

ROA—Range Operations Agency

ROO—Range Operations Officer

RWR—Radar Warning Receiver

SPI—Sensor Point of Interest

SOF—Supervisor of Flying

UXO—Unexploded Ordinance

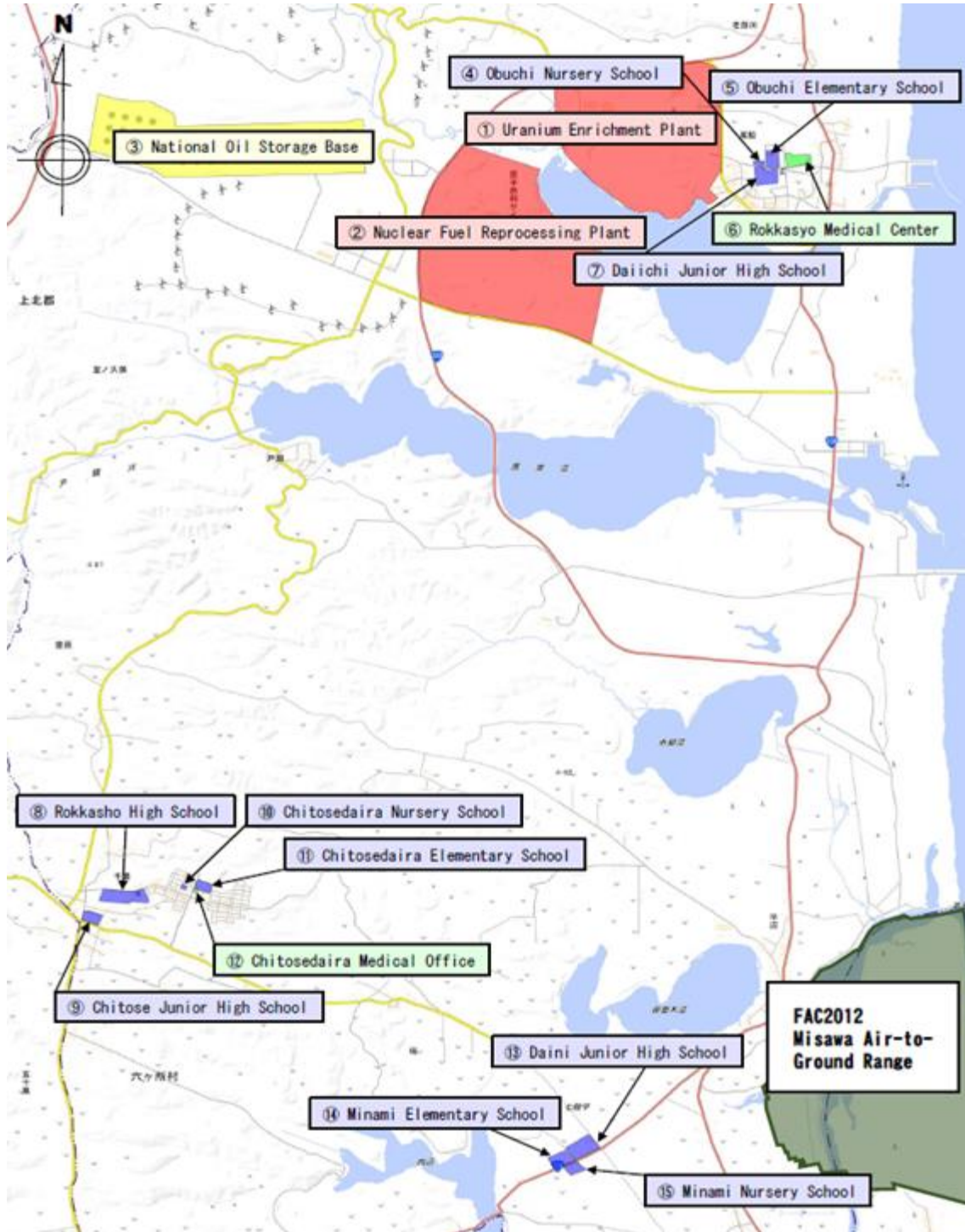
WDZ—Weapons Danger Zone

WISS—Weapon Impact Scoring System

Attachment 2

PUBLIC FACILITIES AROUND FAC2012

Figure A2.1. Public Facilities around FAC2012.



No.	Facility	Coordinates
1	Uranium Enrichment Plant	N405828 E1412100
2	Nuclear Fuel Reprocessing Plant	N405731 E1411943
3	National Oil Storage Base	N405816 E1411726
4	Obuchi Nursery School	N405809 E1412153
5	Obuchi Elementary School	N405812 E1412159
6	Rokkasyo Medical Center	N405811 E1412212
7	Daiichi Junior High School	N405805 E1412158
8	Rokkasyo High School	N405317 E1411638
9	Chitose Junior High School	N405308 E1411618
10	Chitosedaira Nursery School	N405320 E1411702
11	Chitosedaira Elementary School	N405319 E1411711
12	Chitosedaira Medical Office	N405318 E1411707
13	Daini Junior High School	N405138 E1412027
14	Minami Elementary School	N405133 E1412014
15	Minami Nursery School	N405129 E1412020