

DoD Installation Visualization Tool

Operational Instruction

Version 1.0



1 Jun 2004

Prepared by the
IVT Program Office
Office of the Deputy Undersecretary of Defense for Installations and
Environment, Business Transformation
ODUSD/I&E (BT)



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Document History

Version	Primary Authors	Description	Date Completed
Draft 1.A	IVT Program Office ODUSD/I&E (BT)	Draft Operational Instruction for IVT IPT and WG review	20 May 04
Version 1.0	IVT Program Office	IVT Operational Instruction version 1.0, with inputs from the IVT WG and IPT chairs.	1 Jun 04



Executive Summary

The Installation Visualization Tool (IVT) Operational Instruction defines protocol and procedures for exploitation of IVT capabilities in support of Base Realignment and Closure (BRAC) 2005. The Operational Instruction defines the IVT user community, protocol for utilization of IVT – including data releasability, distribution format, and audit access to IVT data, procedures to access IVT data and capabilities, IVT access controls, training, and help desk support. The IVT Operational Instruction defines primary points of contact for all IVT issues and summarizes the IVT governance structure. The Operational Instruction is consistent with the IVT Charter approved by the IVT Integrated Product Team.

IVT shall be made available to the BRAC Joint Cross Service Groups, to the Service HQ BRAC Offices, and to other BRAC support elements within the Services at the discretion of the Service HQ BRAC Offices. The primary point of contact for IVT issues shall be the IVT Program Office. IVT data shall not be released outside the DoD BRAC community without coordination with and consent from the IVT Integrated Product Team.

IVT provides the BRAC 2005 process a means of viewing imagery and geospatial data in a consistent fashion for all installations meeting BRAC 2005 threshold criterion. Each Service will define and publish a unique plan and procedure for using IVT during their BRAC 2005 process. IVT will provide the ability to visualize the installation and associated range complexes using an overhead (satellite) image of each installation or activity meeting BRAC Section 2687 threshold manpower criteria, installation/range boundary, and significant “exclusion zone” criteria depicting areas of the installation or range not available to accept realigned missions from closed installations. Each criterion is depicted on a map overlay layer.

During the BRAC 2005 process, the Services will provide certified responses to BRAC data call questions. Several BRAC data call questions directly address constraints to realignment and request information on constraint factors visualized in IVT. In these cases, the certified responses should be developed using the same sources used for the IVT pictures. Should IVT conflict with the BRAC data call, in all cases, the BRAC data call will prevail as the definitive answer.



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1.0 Introduction

The IVT Operational Instruction (OI) defines procedures and protocol for use of the Installation Visualization Tool (IVT) to supplement Base Realignment and Closure (BRAC) 2005 analysis.

IVT capabilities are being established to further the objectives set forth in the 15 Nov 02 Secretary of Defense Memorandum, Transformation Through Base Realignment and Closure. In particular, the Secretary stated:

“A primary objective of BRAC 2005, in addition to realigning our base structure to meet our post-Cold War force structure, is to examine and implement opportunities for greater joint activity. Prior BRAC analyses considered all functions on a service-by-service basis and, therefore, did not result in the joint examination of functions that cross Services. While some unique functions may exist, those functions that are common across the Services must be analyzed on a joint basis.”

IVT will provide the BRAC 2005 process additional means of viewing installation data in a consistent fashion for all installations meeting BRAC Section 2687 threshold manpower criteria. The validated BRAC questionnaire data is always the overriding data source. IVT simply provides a geospatial supplement to deliberative data.

2.0 Authority

The Undersecretary of Defense for Acquisition, Technology, and Logistics (USD/AT&L) released the Transformation through Base Realignment and Closure (BRAC 2005) Policy Memorandum One – Policy, Responsibilities, and Procedures (“BRAC Policy Memo No. One”) on 16 Apr 03. Guidance in BRAC Policy Memo No. One applies to the Military Departments and Defense Agencies (DoD Components) and Joint Cross Service Groups (JCSG) in developing the Secretary of Defense’s base realignment and closure recommendations for submission to the BRAC 2005 Commission for its review.

BRAC Policy Memo No. One identifies IVT as a capability to enhance the Department’s overall ability to manage its infrastructure that shall be used as a tool during the BRAC 2005 process. The BRAC Infrastructure Steering Group (ISG) has developed requirements for use of IVT through an Integrated Process Team (IPT) established by USD (AT&L). This IPT – comprised of the OSD Director and Military Department Deputy Assistant Secretaries for BRAC – has directed that IVT will be used as an installation visualization capability to supplement BRAC capacity analysis and realignment planning decisions.



3.0 IVT Applicability

IVT includes data for DoD owned and leased installations, sites, or facilities¹ to which Title 10 USC Section 2687 applies. Section 2687 (referred to herein as “BRAC Section 2687 threshold manpower criteria”) applies to the closure of any military installation where 300 or more direct hire permanent civilians are authorized to be employed. Title 10 USC Section 2687 defines a “military installation” as

Any base, camp, post, station, yard, center, homeport for facility for any ship, or other activity under the jurisdiction of the Department of Defense, including any leased facility, which is located within any of the United States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the Virgin Islands, or Guam. Such term does not apply to any facility used primarily for civil works, rivers and harbors, projects, or flood control projects.

Section 2687 also applies to the realignment of any military installation at which 300 or more DoD direct hire permanent civilians are authorized to be employed if the realignment will result in the reduction by more than 1000, or by more than 50 percent, in the number of DoD direct hire permanent civilians authorized to be employed at that installation.

In some cases, services have included subordinate sites (geographically separate units) to installations meeting the BRAC Section 2687 threshold manpower criteria.

IVT will also depict active air-to-surface range boundaries and range complex boundaries for active/inactive ground ranges associated with installations meeting BRAC Section 2687 threshold manpower criterion. IVT will depict the outermost boundaries of those lands owned, leased, or protected by other restriction (e.g., withdrawn lands) by the DoD supporting range operations. Military training routes (MTRs) and other Special Use Airspace associated with DoD range complexes will be depicted in IVT as well.

4.0 IVT Capability Overview

IVT provides a supplemental capability enabling the ability to visualize constraints to realignment for all installations and subordinate sites meeting BRAC 2005 threshold criterion. IVT is intended to provide situational awareness and is a starting point for further detailed analysis.

IVT will provide the ability to visualize the installation and associated range complexes using an overhead (satellite) image of each installation or activity meeting BRAC Section 2687 threshold manpower criteria, installation/range boundary, and significant “exclusion zone” criteria depicting areas of the installation or range not available to accept realigned missions from closed installations. Each criterion is depicted on a map overlay layer. IVT overlay layers include the following for each installation:

¹ Interim DoD Instruction 4165.14, Department of Defense Real Property Inventory Reporting and Forecasting, 19 Aug 02, defines “installation” as a single site (e.g., Pope AFB) or a grouping of two or more sites (e.g., Ft Belvoir as the main installation and Woodbridge Housing as a subordinate site) for the purposes of inventory control. DoDI 4165.14 defines a “site” as a contiguous geographic area owned or leased by a Military Department.



1. Installation/range complex boundary;
2. Explosive Safety Quantity Distance (ESQD) arcs;
3. Accident potential zones, clear zones, and noise zones;
4. Floodplains and wetlands;
5. Overhead (satellite) image of the installation and surrounding region.

The above-listed overlay layers were provided by installations – with signature by base-level command authority – to OSD stating the data are the best available representation from the installation.

The following additional overlay layers were compiled centrally by the OSD IVT Office for inclusion in IVT:

6. Special use airspace, military training routes, and air refueling tracks;
7. EPA non attainment areas;
8. Reference maps showing political boundaries, land and water features, urban areas, city and town names, federal lands, etc.

During the BRAC 2005 process, the Services will provide certified responses to BRAC data call questions. Several BRAC data call questions directly address constraints to realignment and request information on constraint factors visualized in IVT. In these cases, an attempt was made to provide certified responses developed using the same sources used for the IVT pictures. Should IVT conflict with the BRAC data call, in all cases, the BRAC data call will prevail as the definitive answer.

IVT data specifications, data handling chain of custody, and capabilities are further defined in the 31 Dec 03 IVT QAP.

5.0 IVT Users

IVT users are grouped into three categories:

1. **BRAC Joint Cross Service Groups (JCSG)** – The seven BRAC JCSGs and associated subgroups may utilize IVT to supplement their BRAC decision-making activities. This Operational Instruction guides the use of IVT by the BRAC JCSGs;
2. **Service HQ BRAC Offices** – Service BRAC Offices may utilize IVT data and capabilities to support Service-specific BRAC installation visualization requirements. This Operational Instruction defines procedures for Service HQ BRAC Offices to access IVT data and capabilities and governs how those offices may share and distribute IVT data;
3. **Other Service BRAC elements and support teams** – Other BRAC support elements with each Service – at the HQ, MAJCOM/MAJCOM, regional, or installation levels – may utilize IVT data and capabilities with the approval of their respective Service HQ BRAC Offices. Each Service may define and publish a unique plan and procedure for using IVT during their analytical process. The IVT Operational Instruction defines how these supporting BRAC elements may share and distribute IVT data.



6.0 IVT Governance and Points of Contact

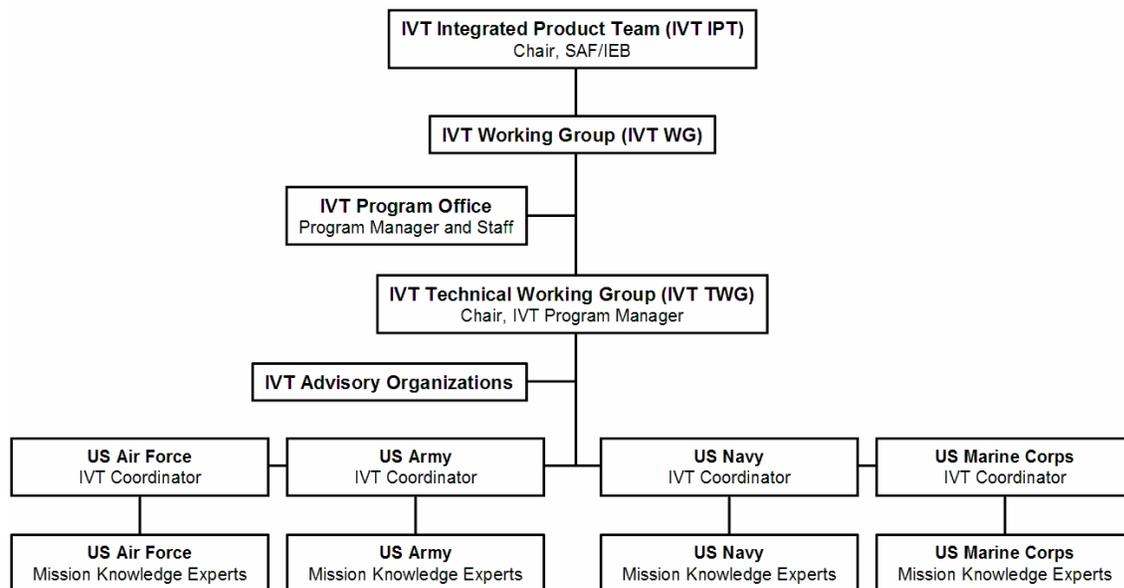
6.1 Governance

The IVT governance framework was established in Aug 03 to define IVT objectives, guide capability development, and provide oversight over IVT exploitation.

The BRAC Infrastructure Steering Group (ISG) has developed requirements for use of IVT through an Integrated Process Team (IPT) established by USD (AT&L) and comprised of the OSD Director and Military Department Deputy Assistant Secretaries for BRAC. The IPT provides fiscal and management controls over IVT to ensure necessary capabilities of common benefit to the Military Departments and OSD.

The IVT Working Group is comprised of O-6/O-5 or civilian equivalent representatives from each Service HQ Installations and Environment element to steer the development, implementation, and sustainment of a common IVT capability across the Military Departments and OSD.

The IVT Technical Working Group is comprised of the IVT Program Manager, the IVT Program Office staff, and IVT coordinators and mission knowledge experts within each Service. The IVT Technical Working Group is responsible for technical development of the IVT specifications, defined in the 31 Dec 03 IVT QAP, and IVT implementation.



More information on the IVT governance structure may be found in the Sep 03 IVT Charter.



6.2 IVT Program Office Points of Contact

The IVT Program Office shall be the primary point of contact for IVT operations, guiding IVT exploitation and sustainment and providing “Help Desk” services to address relevant questions. All questions shall be directed to the following individuals within the IVT Program Office as follows:

IVT Policy and Oversight:

Col Brian Cullis, IVT Working Group Chair

Email: <mailto:brian.cullis@osd.mil>

IVT Technical Issues and IVT Equipment and Database Support:

RSS dd – IVT Help Desk, OSD-ATL

Email: <mailto:ivt.helpdesk@osd.mil>

Mr Daniel Feinberg, IVT Program Manager, Technical Working Group Chair

Email: <mailto:daniel.feinberg.ctr@osd.mil>

Phone: (703) 604-0572

Mr Marc Beckel, IVT Program Office Staff:

Email: <mailto:marc.beckel.ctr@osd.mil>

Phone: (703) 604-1792

Mr Patrick Easton, IVT Program Office Staff:

Email: <mailto:patrick.easton.ctr@osd.mil>

Phone: (703) 604-1747

7.0 Protocol for IVT Use

Installations are the stewards of data provided to OSD for use in IVT (installation and range complex boundaries, noise zones, accident potential zones, explosive safety quantity distance arcs, wetlands, and floodplains). Installations produce, maintain, and utilize those data on a daily basis in support of numerous operations and maintenance activities. Services and installations retain the right to share those data as they see fit, in accordance with DoD and Service-specific data sharing and information security policies. However, the copies of those data provided by installations to OSD for use in IVT are from that point forward considered BRAC support data and are governed by BRAC policy and data sharing protocols.

The BRAC community shall not share copies of installation-provided geospatial data or related metadata (i.e., those data stored in the IVT database) with any individuals or organizations outside the BRAC community itself. Any requests for installation geospatial data from outside the BRAC community should be forwarded to the appropriate Services’ geospatial management office for their consideration and action. Specific protocols for protecting and sharing those data provided by installations to OSD for use in IVT are described further herein.



7.1 Disclaimers

IVT data have been provided to OSD for use in support of the BRAC 2005 process and therefore shall contain the BRAC disclaimer. Other documents addressing IVT processes or portraying data from IVT, including email messages, meeting minutes, etc. may be required to include the standard BRAC disclaimers at the discretion of OSD or the Service HQ BRAC offices. The following standard BRAC disclaimer shall be placed on the IVT portfolio materials:

Deliberative Document - For Discussion Purposes Only
Do Not Release Under FOIA

7.2 Releasability

To protect the integrity of the BRAC 2005 process, all IVT data and metadata provided in the IVT portfolio are deemed deliberative and internal to DoD. Requests for release of IVT data and metadata in support of BRAC 2005, including those under the Freedom of Information Act (FOIA), received prior to the Secretary of Defense forwarding his realignment and closure recommendations to the BRAC Commission shall be forwarded to the IVT IPT (or the IVT IPT via the IVT Program Office) for approval. The IVT Program Office will vet the request with the IVT Integrated Product Team as necessary before authorizing release of the requested data or metadata.

Consistent with the organizational controls set forth in the DoD BRAC Internal Control Plan in BRAC Policy Memo No. One, access to data and metadata in the installation-provided IVT portfolios will not be granted to any individual, to include technical experts or outside consultants, without the consent of the IVT IPT. Such access carries a responsibility for ensuring that IVT data and information are treated as sensitive and pre-decisional. Members of the IVT team within OSD and the Services, as defined in the Sep 03 IVT Charter, are required to protect the BRAC 2005 process from either improper or unofficial disclosures.

7.3 Distribution Format

When approved for release by the IVT IPT, the IVT Program Office will provide IVT information to the requesting party in the following formats:

	BRAC Commission, Public Domain	Internal DoD Use, BRAC Auditors
IVT Overlay Layer²	Non-modifiable format; hardcopy map, or unregistered picture (TIFF, JPG, GIF, PDF, etc.)	Native electronic format (ESRI shapefile), georeferenced and attributed.
IVT Imagery³	Non-manipulatable derived data including hardcopy maps or unregistered picture (TIFF, JPG, GIF, PDF, etc.), in accordance with NGA DoD/Title 50 commercial imagery	Source data in native electronic format (GeoTIF or similar), georeferenced, in accordance with NGA DoD/Title 50 commercial imagery license restrictions

² When made available for release outside the DoD BRAC community, IVT overlay layers shall be displayed together to provide a composite view of exclusion constraints at any given installation, site.



	license restrictions	
IVT metadata	Native electronic format (XML, SGML), non-modifiable format (PDF), or hardcopy printouts. Installation-specific points of contact in the metadata will be replaced with a generic OSD point of contact.	Native electronic format (XML, SGML), non-modifiable format (PDF), or hardcopy printouts

Appendix A includes examples showing how IVT data shall appear upon release outside the DoD BRAC community.

Distribution of IVT imagery is constrained by the National Geospatial-Intelligence Agency (NGA) commercial imagery DoD/Title 50 license restrictions to Military Departments, Defense Agencies, and the Federal intelligence community as defined in Appendix C of the 31 Dec 03 IVT QAP. Non-DoD organizations and the general public retain the right to purchase the same imagery directly from the vendor at their discretion. DoD/Title 50 license agreements are defined in the NGA [Commercial Imagery Copyright and License Interim Guidance](#), 2 Aug 00. Specific license restrictions for IVT imagery and a list of Title 50 organizations can be found in IVT QAP Appendix C.

7.4 Audit Access to Records

As per BRAC Policy Memo No. One, the DoD will allow Government Accounting Office (GAO) and BRAC auditors full and open access to all elements of the BRAC process, including IVT data and metadata, and to all data supporting the Secretary’s final recommendations as it is being developed and implemented. Copies of deliberative meeting minutes will be made available to the GAO as they are signed by the BRAC Chair.

8.0 IVT Deployment Strategy

IVT will be provided to the IVT user groups (see Section 5.0) as follows:

1. **BRAC Joint Cross Service Groups (JCSGs)** – Seven (7) portable IVT workstations shall be made available by the IVT Program Office to the BRAC JCSGs and associated JCSG subgroups. Each IVT workstation is comprised of the following:
 - **Laptop computer** – Mobile laptop with Adobe Acrobat for printing maps and metadata, ArcView (a commercial off-the-shelf mapping/geographic information systems software package from ESRI, Inc.), and the IVT Application, a custom program within ArcView enabling access to IVT information;
 - **External Hard Drive** – A small external Hard Drive, to be connected to the IVT laptop, containing the IVT database;
 - **IVT Database** – All data (overlay layers and satellite imagery), metadata, and supporting documentation (IVT data submittal letters signed by the base-level command authority,

³ Imagery will typically be shown on the same composite map as the IVT overlay layers, upon release outside the DoD BRAC community.



forms documenting revisions to IVT data subsequent to initial submittal to OSD) for installations and subordinate sites meeting BRAC Section 2687 threshold criteria;

- **Projector** – A portable projector enabling display from the IVT workstation laptop.
2. **Service HQ BRAC Offices** – The IVT Program Office shall make the IVT database and custom IVT application available to the Service HQ BRAC Offices. Services are responsible for providing necessary IT components upon which the IVT database and IVT application can be loaded;
 3. **Other Service BRAC elements and support teams** – May obtain a copy of the IVT database and IVT Application upon request to and endorsement from their respective Service HQ BRAC Office.

Neither the IVT database nor the IVT Application may be shared outside the DoD BRAC community (those organizations directly supporting BRAC 2005 and those individuals with signed BRAC non-disclosure agreements). Requests for IVT data or the IVT Application from non-BRAC elements should be forwarded to the IVT Program Office as described in Section 7.0.

9.0 JCSG IVT Access Procedures

9.1 Obtaining an IVT Workstation

JCSGs shall follow the procedures documented herein to obtain and return IVT workstations. Service HQ BRAC Offices may define Service-specific protocol for internal access to the IVT database and capabilities as necessary.

1. **Contact the IVT Program Office** – via email or telephone. Primary IVT Program Office POCs are:
 - RSS dd – IVT Help Desk, OSD-ATL**
Email: <mailto:ivt.helpdesk@osd.mil>
 - Mr Daniel Feinberg, IVT Program Manager, Technical Working Group Chair**
Email: <mailto:daniel.feinberg.ctr@osd.mil>
Phone: (703) 604-0572
 - Mr Marc Beckel, IVT Program Office Staff:**
Email: <mailto:marc.beckel.ctr@osd.mil>
Phone: (703) 604-1792
 - Mr Patrick Easton, IVT Program Office Staff:**
Email: <mailto:patrick.easton.ctr@osd.mil>
Phone: (703) 604-1747

The IVT Program Office will log the access request and identify an available IVT workstation;

2. **Obtain the IVT Workstation** – Depending on location and availability, IVT Program Office staff may bring the IVT workstation to the JCSG meeting location, or a representative from the



JCSG may travel to the IVT Program Office in Crystal City, VA to obtain the identified IVT Workstation;

3. **Sign-out the IVT Workstation** – A representative from the requesting JCSG shall sign and date a log book, described further in Section 10.4, acknowledging receipt of and responsibility for the IVT Workstation while in its possession. At this time the IVT Program Office will issue a login/password enabling access to the workstation.

9.2 Returning an IVT Workstation

JCSGs shall perform the following when returning an IVT Workstation to the IVT Program Office

1. **Contact the IVT Program Office** – via email or telephone to notify the intent to return the IVT workstation;
2. **Return the IVT Workstation** - Depending on location and availability, IVT Program Office staff may obtain the IVT workstation from the JCSG meeting location, or a representative from the JCSG may travel to the IVT Program Office in Crystal City, VA to return the identified IVT Workstation. IVT Program Office staff will ensure all items have been returned;
3. **Sign-in the IVT Workstation** – Upon return to the IVT Program Office a representative of the JCSG shall sign and date the log book indicating return of the workstation. A representative of the IVT Program Office shall also sign the log book acknowledging receipt of the IVT workstation, and in turn therefore transferring accountability for those assets back to the IVT Program Office.

10.0 IVT Access Controls

10.1 IVT Workstation Access Controls

JCSGs should obtain IVT Workstations on an as-needed basis. JCSGs may retain IVT workstations for extended periods when frequent access to IVT is required or desired. However, IVT Workstations should be returned to the IVT Program Office during extended periods where no IVT access is planned.. When in possession of one or more IVT Workstations, at least one representative from each JCSG should be able to account for workstation whereabouts at all times.

The IVT Workstations will not be connected to or configured for any network domains or to the Internet, thereby minimizing opportunities for inadvertent or deliberate electronic transfer of IVT data.

IVT Workstations shall only be accessed with a login/password to be issued by the IVT Program Office. This login/password will be provided to the JCSG representative obtaining the IVT workstation, as described in Section 9.1.



10.2 IVT Database Access Controls

Access to IVT data, including distribution constraints, are defined in Section 7.0.

Files in the IVT database will be set with “read-only” permissions, thereby minimizing opportunities for inadvertent or deliberate modifications to IVT database content. Data editing functions within ArcView – the COTS software within which the IVT Application is executed – have been disabled, thereby further minimizing inadvertent or deliberate modifications to IVT data.

The IVT Program Office may choose to reload the “master” IVT database on any or all IVT workstations at any time if there is any question or concern regarding the integrity of the IVT database (i.e., any suspicion exists that IVT data may have been modified).

10.3 Storing IVT Workstations

IVT Workstations, when not in use by the JCSGs, will be stored at the IVT Program Office, ODUSD/I&E (BT) at 400 Army-Navy Drive, Suite 206, Arlington, VA 22202.

When in possession of one or more IVT Workstations, JCSGs shall ensure that access to those workstations is limited to JCSG representatives only.

Service HQ BRAC Offices should establish procedures to control access to the IVT database on a need-to-know basis.

10.4 Tracking IVT Access – IVT Workstation Log Book

The IVT Program Office will retain a log book indicating who has possession of (and responsibility for) all IVT workstations at any given time. The IVT Workstation access log book shall document who obtained and returned each IVT workstation, including name, organization, signature and date, and can be made available to the BRAC Joint Audit Planning Commission upon request.

11.0 Training

JCSGs and Service HQ BRAC Offices may request IVT training from the IVT Program Office. The IVT Program Office will provide the following during IVT training sessions:

- IVT capability overview;
- Introduction to IVT contents;
- Overview of protocols and procedures defined within this Operational Instruction;
- Use of the IVT Application, including hands-on demonstration;
- (upon request) IVT workstation setup and troubleshooting.

The IVT Program Office will utilize the 31 Dec 03 IVT QAP, this Operational Instruction, and the IVT Application Users Guide during IVT training sessions.



IVT training is designed to last three (3) hours. However, additional training and support (or shorter executive summaries and briefs) can be provided by the IVT Program Office upon request.

IVT training will occur at locations to be determined by and reserved by the JCSG or Service HQ BRAC Offices.

12.0 Help Desk Support

All questions and requests for clarification from the JCSGs and Service HQ BRAC Offices regarding IVT protocol, capabilities, and data content shall be directed to the OSD IVT Office. The OSD IVT Office will provide IVT “Help Desk” services to these users. Other Service BRAC support elements shall direct their questions to their respective Service HQ BRAC Office.

JCSGs shall contact the IVT Program Offices with all questions regarding IVT data content. In the event a specific question or set of questions are in reference to a particular installation, site, or range, the IVT Program Office shall contact the appropriate Service HQ BRAC Office as necessary for response.

IVT users should perform the following steps, in this order, to resolve any questions or clarifications on IVT:

For questions and clarifications regarding IVT capabilities or protocol for IVT use:

1. Review the 31 Dec 03 IVT QAP, this Operational Instruction, or the 1 Jun 04 IVT Application Users Guide. If your question has not been answered,
2. Contact the OSD IVT Office via email or telephone. Primary IVT Program Office POCs are:

RSS dd – IVT Help Desk, OSD-ATL

Email: <mailto:ivt.helpdesk@osd.mil>

Mr Daniel Feinberg, IVT Program Manager, Technical Working Group Chair

Email: <mailto:daniel.feinberg.ctr@osd.mil>

Phone: (703) 604-0572

Mr Marc Beckel, IVT Program Office Staff:

Email: <mailto:marc.beckel.ctr@osd.mil>

Phone: (703) 604-1792

Mr Patrick Easton, IVT Program Office Staff:

Email: <mailto:patrick.easton.ctr@osd.mil>

Phone: (703) 604-1747

For questions and clarifications regarding the IVT database (data content):

1. Review the metadata associated with the IVT file(s) in question. Instructions for accessing IVT metadata are described in the IVT Application Users Guide. IVT metadata contents are described in Appendix B of the IVT QAP. If your question has not been answered upon review of the IVT metadata,



2. Contact the OSD IVT Office via email or telephone. Primary IVT Office Contacts are shown directly above. If the OSD IVT Office cannot answer the question,
3. The OSD IVT Office will contact the appropriate Service for clarification. While contact may be made by phone to the Service to expedite the response, a written record of the request will be made by the OSD IVT Office, for archival purposes.
4. The Service will provide the response back to the OSD IVT Office, who in turn will respond to the requesting JCSG (and forward the response to other JCSGs for their consideration).

The OSD IVT Office will attempt to provide initial responses to all questions within one working day and will request the Services expedite any necessary research to satisfactorily answer questions.

13.0 IVT Updates

13.1 IVT Database Version 1.0

IVT will be deployed initially with IVT database “version 1.0”. IVT database version 1.0 will contain IVT data, metadata, and supporting files (submittal cover letters, data revision documentation) for all installations and subordinate sites meeting BRAC Section 2687 threshold manpower criteria. In some cases the Services are continuing to modify and improve select IVT “portfolios” (data for any given installation/site) based on Quality Assurance/Quality Control (QA/QC) checks performed by the IVT Program Office.

The IVT Program Office will document the status of each IVT portfolio to indicate one of the following at the time of release of IVT database version 1.0:

- **Complete Data Set** – The portfolio of data, metadata, and supporting files for the given IVT portfolio are complete and pass IVT Program Office QA/QC checks. No further changes to this portfolio are planned;
- **Complete Geographic Features, Interim Metadata** – The geographic features portrayed in IVT (i.e., the “picture”) for the given portfolio are complete and pass IVT Program Office QA/QC checks, however the metadata included in IVT database version 1.0 are interim and continue to be improved by Service IVT teams in response to IVT Program Office QA/QC comments;
- **Interim Geographic Features and Metadata** – Both the geographic features and metadata for a given portfolio are interim and continue to be improved by Service IVT teams in response to IVT Program Office QA/QC comments.

IVT users should be aware of the status of any given IVT portfolio at all times. The IVT Program Office will provide the status of IVT portfolios in the IVT database version 1.0 to all IVT users.

13.2 Updating the IVT Database

Services are submitting improved IVT data for select portfolios to OSD subsequent to the release of IVT database version 1.0. Upon acceptance of those re-submitted data, OSD will compile those changes in a new master IVT database and – at a date endorsed by the IVT Integrated Product Team – will announce



the release of the IVT database version 1.1. IVT database version 1.1 will contain complete data sets for *all* IVT portfolios. No interim “patches” (updating of individual files) will occur; all changes will be grouped into a single master database for a common update.

Once compiled, the IVT Program Office will notify each JCSG and Service HQ BRAC Office that IVT database Version 1.1 is ready for release. The IVT Program Office will then install IVT database version 1.1 on each of the seven IVT workstations for the JCSGs and will offer the version 1.1 database to the Service HQ BRAC Offices for their use.

No additional updates to the IVT database updates for the BRAC effort are planned after the release of IVT database version 1.1. However, IVT data will provide the foundation for the Defense Installation Spatial Data Infrastructure – addressing other ongoing non-BRAC installation visualization requirements.



Appendix A – Examples of Releasable IVT Data

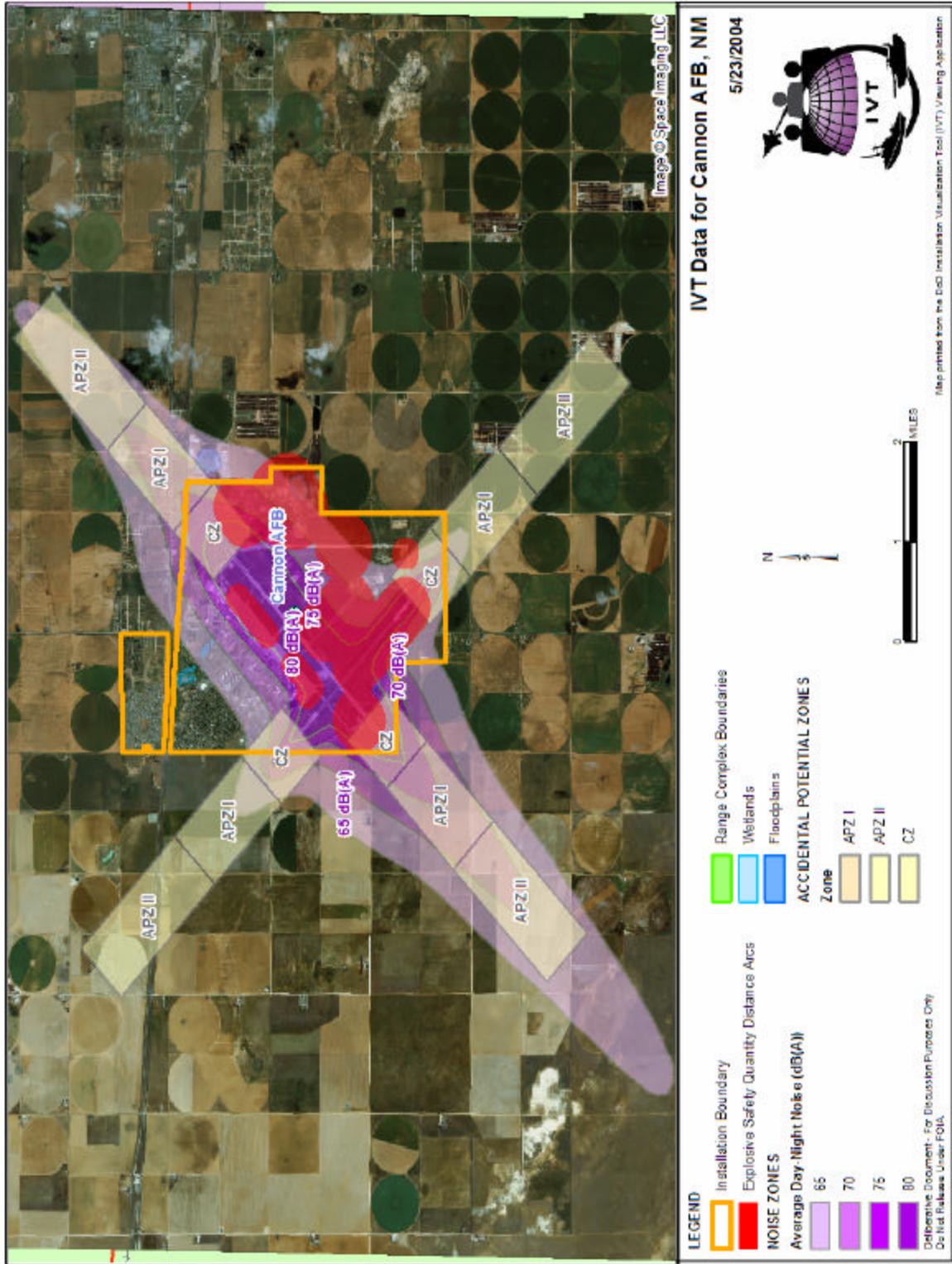
The IVT Program Office shall distribute IVT data, using formats defined in Section 7.3, with the approval of the IVT IPT. Appendix A provides examples of the following for a select IVT portfolio:

- **Map showing IVT data** – IVT overlay layers and imagery will be provided together on a composite map of a given IVT portfolio, in non-modifiable PDF format. The attached map (for Cannon AFB, NM) illustrates how these maps shall depict IVT data upon release outside the DoD IVT community.
- **IVT metadata printout** – One metadata file will be provided for each IVT overlay layer and image file shown on the above-referenced composite map. The attached metadata printout shows the format of IVT metadata upon release outside the DoD IVT community. While only one metadata file is included herein as an example (for the Cannon AFB Noise Zone IVT Overlay Layer), multiple metadata printouts will be provided for any given IVT portfolio – one for each IVT overlay layer.

Note in the enclosed example, base-specific point of contact information in metadata sections 1.9 and 7.4 has been removed and replaced with a generic IVT Program Office point of contact.



Sample IVT Map for Release Outside DoD BRAC Community





Sample Metadata Printout for Release Outside DoD BRAC Community

Page 1 of 4:

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Noise Contours (Noise_Zone_Area)

Metadata items shown as defined in the 31 Dec 03
DoD Installation Visualization Tool (IVT) Quality Assurance Plan (QAP) v1.1

Section 1 - Identification

1.1 Citation

Data Set Originator
USAF Cannon Air Force Base

Data Set IVT Publication Date (yyyymmdd)
20040423

Title
Noise Contours

1.2 Description

Abstract
Compiled by the DoD Service to supplement BRAC 2005 decision-making by visually interpreting validated BRAC data, depicting the geographic extent of noise on and beyond the boundaries of DoD installations and activities meeting BRAC Section 2687 threshold manpower criteria. Depicts noise contours, in 5 dB intervals, for noise generated from fixed or rotary wing aircraft operations, associated ground maintenance noise, and large caliber weapons (20mm or greater), using A-weighted or C-weighted noise contours as per Federal and DoD guidelines.

Purpose
Information portrayed herein enables DoD Military Departments, BRAC JointCross Service Groups, and the BRAC Commission to visualize installations meeting BRAC criterion. The information portrayed herein will be used to visually interpret statistical numerical information provided by Military Departments in response to BRAC data calls and provides a complimentary geospatial supplement to the deliberative data and a starting point for further analysis.

1.3 Time Period of Content

Single Calendar Date (yyyymmdd)
19960700

Currentness Reference
Ground condition date

1.4 Status

Status
Complete

Maintenance and Update Frequency
N/A - Snapshot of conditions on given date provided for BRAC 2005 visualization

1.5 Spatial Domain

1.5.1 Spatial Domain, Bounding Coordinates

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West
-103.387172
East
-103.271100
North
34.429506
South
34.330473

1.6 Keywords

Theme Keyword Thesaurus
None

Theme Keywords
Installation Visualization Tool
IVT
BRAC 2005
Cannon Air Force Base
Noise Contours

1.7 Access Constraints

Access Constraints
Electronic copies of IVT Overlay Layers, in CADD or GIS format, will not be distributed within the public domain. Upon request, the OSD IVT Office may provide unregistered pictures showing the geographic extent of phenomena portrayed in this IVT overlay layer.

1.8 Use Constraints

Use Constraints
Data used to supplement BRAC 2005 deliberations. This data was not used for BRAC 2005 analysis. No use constraints upon release in the public domain.

1.9 Mission Knowledge Expert Point of Contact

Contact Person
Contact Organization
ODUSD/I&E (Business Transformation)
Contact Position/Title
IVT Program Office
Address Type
mailing and physical address
Address
400 Army Navy Drive, Suite 206
City
Arlington
State or Territory
VA
Postal/Zip Code
22202
Country
USA
Telephone Number
COMM (703) 604-0572
EMAIL Address
ivt.helpdesk@osd.mil

Section 2 -- Data Quality

2.3 Completeness Report

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Completeness Report

Complete data set

2.4 Horizontal Positional Accuracy Report

Horizontal Positional Accuracy Report

Unknown

2.5 Lineage

Source Originator

USAF ACC/CEVP

Source Title

27 FW - Air Installation Compatible Use Zone Report - Cannon AFB, New Mexico

Source Publication Date

19980122

Source Data Format

Vector digital data

Source Contribution

Published AICUZ Report

Process Description

Converted georeferenced GIS file to IVT specifications

Dataset copied.

Section 4 -- Spatial Reference Information

4.1 Horizontal Coordinate System Definition

Geographic Coordinate Units

meters

Grid Coordinate System, Coordinate System Name

Universal Transverse Mercator

UTM Zone Number

13

Horizontal Datum Name

D_WGS_1984

Section 5 -- Entity and Attribute Overview

5.2 Entity and Attribute Overview

Entity and Attribute Overview

IVT attributes organized by the Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE), NCITS 353, Version 2.22. IVT attribute table structures meet basic compliance guidelines as defined by the CADD-GIS Technology Center. Several custom fields have been added to store additional information not accommodated by the standard SDSFIE attribute tables.

Section 7 -- Metadata Reference Information

7.1 Metadata Date

Metadata date (yyyymmdd)

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20040423

7.4 Metadata Contact Information

Contact Person
Contact Organization
ODUSD/I&E (Business Transformation)
Contact Position/Title
IVT Program Office
Address Type
mailing and physical address
Address
400 Army Navy Drive, Suite 206
City
Arlington
State or Territory
VA
Postal/Zip Code
22202
Country
USA
Telephone Number
COMM (703) 604-0572
EMAIL Address
ivt.helpdesk@osd.mil

7.5 Metadata Standard Name

Metadata Standard Name
FGDC Content Standards for Digital Geospatial Metadata

7.6 Metadata Standard Version

Metadata Standard Version
FGDC-STD-001-1998

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