VIRGINIA DEPARTMENT OF TRANSPORTATION

MAINTENANCE & TRAFFIC OPERATIONS DIVISION

INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM

GENERAL SUBJECT: Two-Way Radio Communications	NUMBER: IIM-MD-2023-6-2 IIM-TOD-20-02.2
SPECIFIC SUBJECT: Establish a standardized procedure for administering a Two-Way Radio Communications plan for Transportation Operations, Safety Service Patrol & Incident Management.	DATE: 10/01/2023 EXPIRES: 10/01/2028
	SUPERSEDES: IIM-OD-20-02.1

APPROVED with Signature of file in the office of the Maintenance & Traffic Operations Division:

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PURPOSE:

The purpose of this IIM is to establish a standardized procedure for administering the two-way radio communications plan for Traffic Operations, Safety Service Patrol, and incident management to improve the safety and efficiency of field personnel reporting conditions to the Transportation Operations Centers (TOC) and the Virginia Department of State Police (VSP).

BACKGROUND:

The Virginia Department of Transportation (VDOT) provides state forces and some contract forces with two-way radio communication to provide real-time observations of field activities. This IIM applies to any VDOT employee or contract personnel utilizing state-owned or leased radio communication equipment.

Section I – Two-Way Communications - Introduction

1. As stated in the purpose, this IIM was developed to establish a standardized procedure for administering the two-way radio communications plan for Traffic Operations, Safety Service Patrol, and incident management in Virginia. VDOT shall operate the various components of the communication system in compliance with local, state, and federal guidelines. Further, VDOT recognizes that proper standardized radio and telephone procedures are essential for providing effective and efficient service to stakeholders and ensuring personnel safety.

1.1. This IIM shall serve as a reference and foundation supplemented by in-person instruction. The IIM is organized as follows:

1.2. Section II – Equipment. Section II introduces the User Advisory Radio Committee (UARC) representative and the role of the VDOT District Equipment Manager. It also presents an overview of the central radio communication systems and the associated equipment used by VDOT and VDOT's emergency response partners.

1.3. Section III – Radio Operators. Section III defines the role of the Radio Operator and reminds all users of the communications system that they must observe the highest standards of professional conduct.

1.4. Section IV – Transportation Operations Centers. Section IV defines the five TOCs strategically located throughout the state that serve a critical role in traffic management. The TOC is the heart of VDOT's emergency communications and traffic incident management program. This section discusses the TOC and the TOC Operator's role in using the Commonwealth's Two-Way Radio Communication system.

1.5. Section V – Communications Procedures. Section V provides a comprehensive look at the day-to-day and some incident-specific procedures and standards that various radio operators should use.

1.6. Appendix A – Citizen's Band Radios (CB). The information in Appendix A presents detail on the use of citizen's band radios.

1.7. Appendix B – VDOT Two-Way Radio Channel Plan. The information in Appendix B presents detail on VDOT Two-Way Radio Channel Plan, its role, and its purpose. It also explains the radio channels used and specific protocols that should be observed for the main categories of radio transmissions.

1.8. Appendix C – Marine Band Radios. The information in Appendix C presents detail on the use of marine band radios.

1.9. Appendix D – Phonetic Alphabet. The information in Appendix D helps to ensure that all Operators use the phonetic alphabet.

1.10. Appendix E – COMLINC MOA. The information in Appendix E details the agreement between the Commonwealth's Office of Public Safety and Homeland Security, the Department of State Police, and VDOT.

1.11. Appendix F – COMLINC Training. The information in Appendix F details the agreement between the Commonwealth's Office of Public Safety and Homeland Security, the Department of State Police, and VDOT regarding required training.

1.12. Appendix G – STARS MOU. The information in Appendix G details the agreement between the Department of State Police and VDOT. Additionally, it covers equipment, inventory, and UARC vehicle tagging.

1.13. Appendix H – STARS Training. The information in Appendix H details the agreement between the Department of State Police and VDOT regarding required training.

1.14. Appendix I – Two-way Radio Maintenance & State Police Network Operations Center. The information in Appendix I details contacting the Department of State Police Network Operations Center when dealing with maintenance issues for STARS and VDOT radio equipment.

1.15. Appendix J – Incident Communication System Plan (ICS) 205. Appendix J presents more detail on the Incident Communication Plan, form ICS-205, which shall be developed for any pre-planned large-scale events and, when possible, for incidents that result from an emergency or significant unforeseen incident.

1.16. Appendix K – Important Contact(s).

Section II - Equipment

1. UARC Representatives & District Equipment Manager roles

1.1. VDOT's User Advisory Radio Committee (UARC) representative administers the State Agencies Radio System (STARS) two-way radio communications on behalf of the Department.

1.2. The Maintenance Division Equipment Section administers all other VDOT two-way radio assets through the District Equipment Manager.

2. Radio Systems

2.1. State Agencies Radio System (STARS) – A digital trunking radio system owned by the Commonwealth and managed by the Virginia Department of State Police. VDOT has a limited number of radios in the STARS system. Twenty-one (21) state agencies use this system. It is operated on a VHF High Band 150 MHz band with the Digital Vehicular Repeater System (DVRS) capabilities to translate to 700/800 MHz using the portable radio.

2.2. Radio Operators shall use the most recent STARS Field Guide from the agency's UARC representative at Central Office.

2.3. VDOT Radio Systems: A legacy two-way radio system owned and managed by VDOT, commonly found in VDOT vehicles, residencies, and area headquarters. Operated on very high frequency (VHF) low band 45.000-47.400 MHz

2.4. Marine Band Radios: Marine Band is a radio system operated on very high frequency (VHF) high band 156.050-162.025 MHz to communicate with other ships, harbors, locks, bridges, marinas, U.S. Coast Guard, and other rescue services.

2.5. Citizen's Band Radios (CB) – A legacy radio system that operates on high frequency (HF) 27 MHz with varied use to communicate business and personal messages.

3. Two-Way Radio Operations

3.1. Personnel-issued mobile radios, portable radios, and charging units shall always maintain operational readiness while on duty.

3.2. In the event the Operator cannot transmit, or no sound is coming over the radio, check the "ON" switch. Then check the "VOLUME" control. Next, verify that the proper channel is selected.

4. Recording and Playback

4.1. VDOT does not maintain a 24-hour continuous recording system on "VDOT Operation Talk Groups." However, VSP does maintain a 24-hour continuous recording system for all telephone calls received and all the radio transmissions received on "Department of State Police Operation Talk Groups."

Section III - Radio Operators

1. Radio Use

1.1. An Operator is any person who operates radio equipment in the course of their duties with VDOT. This may include administrative, maintenance, traffic operations personnel, VDOT contractors, etc.

- All Operators will:
- Speak clearly and distinctly.
- Use plain "English."
- Know and use the appropriate phonetic alphabet. (See Appendix D – Phonetic Alphabet)
- If the vehicle is equipped, keep all VDOT two-way communications turned on and audible at all times. If not using the vehicle, make sure the equipment is turned in the off position.

- Use the vehicle's outside speaker system if equipped when working in the immediate area when no portable radio is available.

1.2. Before transmitting, listen and make sure there is no ongoing radio traffic.

1.3. If the Operator hears an audible steady beeping tone on the channel, the operator shall **"STOP TRANSMITTING"** and relinquish the radio immediately; this usually means an emergency transmission is imminent. Do not transmit until the emergency is clear.

1.4. Operators who attempt to contact the TOC, Department of State Police (VSP) Division Communications Center, District, Residency, etc., and do not receive an immediate answer should wait a few seconds. If no response is heard within ten seconds, repeat the initial call.

1.5. Keep all messages as brief as possible.

1.6. Use of profanity and abusive language is prohibited.

1.7. Use of the radio for any purpose other than official VDOT business-related communications is prohibited.

2. Discreet Emergency Button (DEB) Activation

2.1. This button is only installed on the STARS system. The activation shall only occur in an emergency. To activate this, the Operator must press the **RED** emergency button. Once started, the unit will send a discreet tone to the base station indicating that emergency assistance is needed. If the **RED** button is pressed by mistake. The end-user must press it again and hold for five (5) seconds to cancel the alert and then inform the TOC Operator and State Police Division Communications Center that it was a mistake.

3. Radio ALIAS

3.1. Unless exigent, radio operators do not use personal names over the radio. **Use the radio alias assigned to the radio by the agency's UARC representative.** The only exception is that the Safety Service Patrol may use the post name.

3.2. On non-VDOT talk groups, radio operators shall only use the assigned radio alias.

3.3. Examples of using the radio alias:

- "DOT18435" to "Salem"-DOT_SWRO
- "DOTSSP175" to "Fairfax"-DOT_NRO
- "DOTIMC700" to "Staunton"-DOT_NWRO
- "DOTIMC700" to "Division 7"-M_CALL_7
- "DOT18435" to "Division 1"-M_CALL_1
- "DOTSSP175" to Division 2"-M_CALL_2

- “Downtown” to “Richmond”-DOT_CRO

ALIAS	
DOTIMC200	Incident Management
DOTOPS001	Traffic Operations Division
DOTSSP001-180	Safety Service Patrol
DOT18435	All other agency vehicles shall use their agency property number on their door, e.g., R18435.

Section IV - Transportation Operations Centers

1. Monitored Base Stations

1.1. The Commonwealth has five Transportation Operations Centers (TOCs). The TOCs are in Salem, Staunton, Colonial Heights (Richmond), Virginia Beach (Hampton Roads), and Fairfax (PSTOC). Contract personnel staff the TOC as Operators, managed locally by the District Traffic Operations Manager (DTOM). The TOCs manage radio and telephone communications, providing 24-hour coverage for Maintenance and Operations services.

2. 24-Hour Service

2.1. TOCs provide 24-hour telephone service for emergency and non-emergency calls for Public Safety Answering Points. All phone lines shall be answered promptly, courteously, and professionally. The telephone numbers for each TOC and the OSSEM are:

- Salem TOC: 540-375-0170
- Staunton TOC: 540-332-9500
- Richmond TOC: 804-796-4520
- Hampton Roads TOC: 757-424-9920
- PSTOC: 703-877-3401
- OSSEM: 804-786-4692

3. Authority

3.1. Each TOC Operator has the authority to dispatch calls for service and direct VDOT responding units. The dispatched responding units’ Field Shift Supervisor may direct in specific emergencies. That Field Shift Supervisor is responsible for final decisions for that dispatched responding unit.

4. TOC Operator Capabilities

4.1. Each TOC Operator will train on the capabilities and limitations of the assigned communications systems. Each TOC Operator will be trained on the organization's main components to route communication traffic properly. Each TOC Operator will become aware of the applicable rules and regulations of the Federal Communications Commission (FCC) and any other relevant local and state laws.

5. Communications Monitoring

5.1. Each TOC monitors all operational frequencies for the assigned area.

5.2. Most two-way messages are handled directly between the TOC Operator and the dispatched responding unit.

5.3. Each relieving TOC Operator's responsibility is to become familiar with any activity the relieved TOC Operator and duty Supervisor bring to their attention.

6. Prohibitions

6.1. Radio users shall not:

- Transmit any false or superfluous information
- Interfere with any distress communication
- Use of any profanity or abusive language is prohibited.
- Willfully permit damage to radio equipment
- Knowingly use or publish the content of a radio message without the permission of the proper authority

7. TOC Operator Rights

7.1. A TOC Operator, whether FCC licensed or not, has the right to protect themselves concerning the duties associated with the communications aspect of their work. If requested to dispatch or perform an act that may reasonably cause a violation of the Rules and Regulations of the FCC, the TOC Operator should immediately advise their immediate supervisor of the incident. If the supervisor orders the duty to be performed, the TOC Operator will immediately comply and enter the information into the associated ATMS incident log/report detailing the incident.

8. Access

8.1. TOC Operator personnel who are on-duty have immediate access to via phone:

- TOC Shift Supervisor
- TOC Floor Operations Manager
- VDOT TOC Program Manager
- VDOT TOC Facility Manager
- VDOT District Traffic Operations Manager
- VDOT District Traffic Operations Director

- Roster of personnel working
- On-Call VDOT Operations, Maintenance, District, Residency, and AHQ personnel
- Outside public safety agencies
- Visual Maps detailing the service areas
- Towing Services via Virginia State Police
- Other outside contracted services that are available

9. Documenting Calls

9.1. Each TOC Operator shall record all pertinent calls for service information, including call-back details, in the associated ATMS incident log/report.

9.2. All emergency telephone and radio calls for VDOT service, including internal calls for service, shall be recorded in the associated ATMS incident log/report. The information recorded includes, but is not limited to, the following relevant information:

- Incident Number, if applicable
- Date and time assigned
- Area
- Complainant/Caller
- Nature of the request
- Location
- Incident code, if applicable
- Assigned to: primary personnel
- Back Up assigned to: secondary personnel
- Time of personnel arrival
- Time of personnel departure
- Disposition status of the reported incident

10. Misdirected Emergency and Non-Emergency Calls

10.1. Occasionally, the Department receives emergency and non-emergency phone calls intended for or under the jurisdiction of another government agency. In those cases of emergencies or the need for prompt assistance, the TOC Operator will take the information and relay the information to the appropriate agency. In response to non-emergency calls, the TOC Operator will advise the caller of the proper agency number.

11. Transportation Operations Center Security

11.1. To enhance safety and minimize TOC Operator distraction, access to the Control room will be limited to authorized personnel, including:

- TOC Operator
- TOC Shift Supervisor
- TOC Floor Program Manager
- VDOT TOC Floor Manager

- VDOT TOC Facility Manager
- VDOT District Traffic Operations Manager
- VDOT District Traffic Operations Director
- Systems Administrator
- VDOT/VSP Radio Tech
- To any other VDOT personnel deemed appropriate by the DTOM

11.2 Measures have been taken to protect the TOC Operator. The equipment includes:

- Locked Doors to restrict public access to the control room.
- Signs on the control room doors prohibit access except to Authorized Personnel.
- Backup power sources for the TOCs at each facility located. The Department's District Facilities inspects and tests the generators monthly and documents the results on their daily worksheet.

Section V - Communications Procedures

1. Field Operations

1.1. At the beginning of their shift, operations vehicles, if equipped, and SSP Operators and Supervisors will notify the TOC Operator, using "plain English," to report their vehicle number and the unit assigned or post number identification. They are to advise the on-duty TOC Operator of any changes in their patrol status.

1.2. The TOC Operator shall record the time and reason personnel are in and out of service.

1.3. To ensure the safety of employees in Safety Service Patrol and Incident Response roles, each TOC Supervisor shall be responsible for maintaining a roster for each shift that includes specific vehicle information in use by each operator. The rostering process will assist in identifying and locating personnel if a **RED** emergency button is activated, injury to or assault on an Operator, or any other dangerous situation. Such vehicle information shall be readily available if a **RED** Emergency Button is activated on a STARS radio and the Department of State Police request the identification of the originating vehicle.

1.4. For routine service calls, the TOC Operator will dispatch the appropriate unit nearest to where the incident occurred. If the reporting person advises of a significant incident (Level III), the TOC Operator may send any available unit.

1.5. In addition, if the Level III incident (or any emergency) is anticipated to exceed twenty-four (24) hours, the Incident Commander (IC) or designee should develop an ICS-205 form within the first sixteen (16) hours. More information and a sample form can be found in Appendix I.

1.6. Circumstances that require a Level II Field Commander at the scene to assume command shall follow the procedures established in IIM-OD-14-02.4 Traffic Incident Process.

1.7. Personnel requiring communications with another unit will direct their transmission through the TOC Operator and the State Police Division Communication Center.

1.8. Examples of using the radio alias to make contact.

- "DOT18435" to "Salem"-DOT_SWRO
- "DOTSSP175" to "Fairfax"-DOT_NRO
- "DOTIMC700" to "Staunton"-DOT_NWRO
- "DOTIMC700" to "Division 7"-M_CALL_7
- "DOT18435" to "Division 1"-M_CALL_1
- "DOTSSP175" to Division 2"-M_CALL_2
- "Downtown" to "Richmond"-DOT_CRO

1.9. If the TOC/VSP has no calls waiting to be dispatched, the TOC Operator and the Department of State Police Division Communications Center will advise DOT-XXX to proceed with the message. The TOC Operator and the Department of State Police Division Communications Center will verify that SSP-XXX received the message.

1.10. If the TOC Operator and the Department of State Police Division Communications Center have calls waiting to be dispatched, the TOC Operator and the Department of State Police Division Communications Center will advise DOT-XXX to stand by.

1.11. Direct unit-to-unit transmissions are permitted in emergencies.

2. Prohibitions

2.1. All radio operators shall not:

- Transmit any false or superfluous information
- Interfere with any distress communication
- Use of profanity and abusive language is prohibited.
- Willfully permit damage to radio equipment
- Knowingly use or publish the content of a radio message without the permission of the proper authority

3. Motorist Assistance Contacts and Other Traffic Incidents

3.1. Prior to exiting the agency vehicle to make contact with the motorist(s), personnel should call the TOC and wait to be acknowledged, and then transmit the following:

- Location, e.g., route, the direction of travel, lanes, and traffic impacts

- Vehicle registration number and state
- Vehicle make, model, and color
- Number of occupants and any damage to the vehicle

3.2. Unusual items and registration plates will be spelled phonetically. (See Appendix D – Phonetic Alphabet)

3.3. After an initial assessment, personnel shall provide the TOC with the following:

- Nature of motorist need (If applicable)
- Any changes to lane impacts
- Additional assistance needed; e.g., wrecker, law enforcement, fire & rescue, additional VDOT support

4. Major Incidents in Progress

4.1. TOC Operators should maintain communications with the caller and collect as much information as possible concerning developments.

4.2. Gathering as much information as possible concerning the incident, which includes, but is not limited to, the following:

- Exact Location
- Other incident details with an estimated duration

5. Emergency Messages

5.1. Infrequently, VDOT is requested, by public safety agencies, hospitals, citizens, etc., to deliver urgent messages to field personnel. When such a request is made, the DTOM will be advised. The DTOM will make a decision on the appropriate action to be taken. Examples of emergency messages include:

- Death or bodily injury of an immediate family member
- Illness of immediate family member
- Notifications of emergency service personnel

6. Obtaining Relevant Information

6.1. TOC Operators or other personnel that receive calls for service will obtain as much relevant information as possible. The amount of information necessary will depend upon the nature of the call. Get as much information as possible; to enhance the safety of the responding personnel and assist in anticipating conditions to be encountered at the scene. This is particularly important in specific categories of calls, such as a Hazmat Spillage or Major Infrastructure damage. More information is always better than not enough.

- WHO is calling?

- WHAT has occurred? Obtain a description of the incident.
- WHERE did it occur? Obtain the exact location of the incident.
- WHEN did it occur? Obtain the exact or approximate time of the incident.
- WHICH direction? Obtain which direction of travel the incident is located.
- Obtain vehicle descriptions and registration information if available.
- In case of pedestrians walking on and along limited access highways, provide a description (e.g., a Caucasian male wearing a red t-shirt, blue jeans, and a New York Mets ball cap walking along the right shoulder near the disabled vehicle.)

7. Communications-Agency Interoperability

7.1. Each TOC is equipped with a STARS radio.

8. Day-to-day dispatch talk groups

8.1. The TOC will use the following STARS talk groups to communicate with their respective Safety Service Patrols and other DOT units.

TOC/Special Facility	Call Sign	Talk group	Sub Area	Function
Southwest	Salem	DOT_SWRO		Dispatch
Northwest	Staunton	DOT_NWRO		Dispatch
Central	Richmond	DOT_CRO		Dispatch
Eastern	Hampton Roads	DOT_ERO_1	Peninsula	Dispatch
Eastern	Hampton Roads	DOT_ERO_2	Southside	Dispatch
Northern	Fairfax	DOT_NRO		Dispatch
Statewide Operations	Central Office	DOT_SOC		Monitor
Mountain Tunnels		DOT_TUN_W		Monitor
Tidewater Tunnels		DOT_TUN_E		Monitor
Transurban	Express Lanes	DOT_TOLL_1		Monitor
I-66 Mobility	Future	DOT_TOLL_2		Future

9. TAC talk groups

9.1. The following STARS talk groups may be used to support tactical operations.

TOC/Special Facility	Talk group	Sub Area	Function
Southwest	DOT_SWRTAC		TAC
Northwest	DOT_NWRTAC		TAC
Central	DOT_CRTAC		TAC
Eastern	DOT_ERTAC_E1	Peninsula	TAC
Eastern	DOT_ERTAC_E2	Southside	TAC
Northern	DOT_NRTAC		TAC
Statewide Operations	DOT_TAC_SOC		TAC
Mountain Tunnels	DOT_TAC_W		TAC
Tidewater Tunnels	DOT_TAC_E1	Hampton Roads Bridge-Tunnel	TAC
Tidewater Tunnels	DOT_TAC_E2	Monitor Merrimac Memorial Bridge-Tunnel	TAC

Transurban	DOT_TAC_T1		TAC
I-66 Mobility	DOT_TAC_T2		TAC

10. Special Operations talk groups

10.1. End-users may use STARS talk groups to support Special Events, Hurricane Evacuations, or events within the National Capital Region (NCR). ***PERMISSION MUST BE COORDINATED FROM VDOT'S UARC TO UTILIZE THESE TALK GROUPS.***

District	Talk group	Function
Bristol, Salem & Lynchburg	DOT_HWY_1	TAC
Culpeper, Fredericksburg, Northern Virginia & Staunton	DOT_HWY_2	TAC
Hampton Roads & Richmond	DOT_HWY_3	TAC

11. VDOT VHF Low Band Interoperability

11.1. If equipped with VDOT VHF Low Band radios, SSP vehicles can communicate with AHQ personnel for assistance with roadway debris, lane closures, etc.

12. Special Portable Tunnel Communication

12.1. End-users operating radios in Virginia's Water and Mountain Tunnels are unique. End-user may only use these talk groups for portable communication inside the tunnels.

13. Mountain Tunnels

13.1. East River Mountain Tunnel – turn to radio Zone 36 Tunnel W with State Police on MUTUAL_4
13.2. Big Walker Mountain Tunnel – turn the radio to Zone 36 Tunnel W with State Police on MUTUAL_4

14. Tidewater Tunnels

14.1. Hampton Roads Bridge-Tunnel – turn the radio to:

14.2. Zone 36 Tunnel E with State Police on MUTUAL_5
14.3. Zone 36 Tunnel B portable communications with the first locality fire department
14.4. Zone 36 Tunnel C portable communications with the second locality fire department
14.5. Zone 36 Tunnel O portable communications on the Orion system talk group OR2 FN1 in the Tidewater area

14.6. Monitor-Merrimac Memorial Bridge-Tunnel – turn the radio to:

14.7. Zone 36 Tunnel E with State Police on MUTUAL_5
14.8. Zone 36 Tunnel B portable communications with the first locality fire department
14.9. Zone 36 Tunnel C portable communications with the second locality fire department

14.10. Zone 36 Tunnel O portable communications on the Orion system talk group OR2 FN1 in the Tidewater area

14.11. Midtown Tunnel – turn the radio to:
14.12. Zone 36 Tunnel E with State Police on MUTUAL_5
14.13. Zone 36 Tunnel B portable communications with the first locality fire department
14.14. Zone 36 Tunnel C portable communications with the second locality fire department
14.15. Zone 36 Tunnel O portable communications on the Orion system talk group OR2 FN1 in the Tidewater area

14.16. Downtown Tunnel– turn the radio to:

14.17. Zone 36 Tunnel E with State Police on MUTUAL_5
14.18. Zone 36 Tunnel B portable communications with the first locality fire department
14.19. Zone 36 Tunnel C portable communications with the second locality fire department
14.20. Zone 36 Tunnel O portable communications on the Orion system talk group OR2 FN1 in the Tidewater area

15. Communications-External Interoperability

15.1. The Department of State Police has patrol vehicles and aircraft capable of communicating with the TOCs, SSPs, and VDOT units equipped with STARS radios during joint operations.

15.2. Each TOC has a Radio Inter-Operability System (RIOS) COMLINC unit.

15.3. The Radio Inter-Operability System (RIOS) COMLINC unit shall be turned on and kept at an audible volume.

15.4. The TOC Operator should use the RIOS COMLINC radio patching when an incident requires joint operations beyond one agency. The TOC Operator shall be proficient in its use and how to operate it to support units out in the field appropriately. Before the patch, this may require external communication (phone calls) with the other allied agencies.

15.5. End-users may initiate the following talk groups for real-time operation or testing purposes with State allied agencies:

- M-CALL-1 (State Police Hailing Channel within State Police Division 1)
- M-CALL-2 (State Police Hailing Channel within State Police Division 2)
- M-CALL-3 (State Police Hailing Channel within State Police Division 3)
- M-CALL-4 (State Police Hailing Channel within State Police Division 4)
- M-CALL-5 (State Police Hailing Channel within State Police Division 5)
- M-CALL-6 (State Police Hailing Channel within State Police Division 6)
- M-CALL-7 (State Police Hailing Channel within State Police Division 7)

16. Once the Department of State Police Division Communications Center acknowledges the need for VDOT to open an interoperability talk group either for real-time operation or for testing purposes, they will most likely assign VDOT to the following talk group for State Allied Agencies:

- INOP_PS_1 (Public Safety within State Police Division 1)
- INOP_PS_2 (Public Safety within State Police Division 2)
- INOP_PS_3 (Public Safety within State Police Division 3)
- INOP_PS_4 (Public Safety within State Police Division 4)
- INOP_PS_5 (Public Safety within State Police Division 5)
- INOP_PS_6 (Public Safety within State Police Division 6)
- INOP_PS_7 (Public Safety within State Police Division 7)
- MUTUAL1 (Shared Channel within State Police Division 1)
- MUTUAL2 (Shared Channel within State Police Division 2)
- MUTUAL3 (Shared Channel within State Police Division 3)
- MUTUAL4 (Shared Channel within State Police Division 4)
- MUTUAL5 (Shared Channel within State Police Division 5)
- MUTUAL6 (Shared Channel within State Police Division 6)
- MUTUAL7 (Shared Channel within State Police Division 7)
- STATE 1

17. Once the Department of State Police Division Communications Center acknowledges the need for VDOT to open an interoperability talk group either for real-time operation or for testing purposes, they will most likely assign VDOT to the following talk group for local allied agencies:

- COMLINC_1 (Local Agencies within State Police Division 1)
- COMLINC_2 (Local Agencies within State Police Division 2)
- COMLINC_3 (Local Agencies within State Police Division 3)
- COMLINC_4 (Local Agencies within State Police Division 4)
- COMLINC_5 (Local Agencies within State Police Division 5)
- COMLINC_6 (Local Agencies within State Police Division 6)
- COMLINC_7 (Local Agencies within State Police Division 7)

Appendices

1. Appendix A - Citizen's Band Radios (CB)

1.1. The CB radio is used to monitor Channel 9, which the FCC has set aside for emergency use only; abide by that rule. When answering a call on the CB, be

professional and courteous. Promptly respond to the CB radio and state, “This is the Virginia Department of Transportation” and “How can I assist you”? Act on all calls.

1.2. If you can assist a motorist who needs help, take action based on knowledge, training, and experience as defined by the agency. The end-user shall notify the TOC of the response and any action taken.

1.3. Suppose the situation requires law enforcement or fire/rescue intervention (e.g., wrecker, domestic violence, medical emergency). The end-user shall relay the information to the TOC. The TOC shall forward the information to the appropriate law enforcement or fire/rescue agency based on the provided information.

2. Appendix B - VDOT Two-Way Radio Channel Plan

2.1. End-users shall use the most recent VDOT Mobile Radio Channel and Transmitter Inventory for the VHF Low Band radio, which is available from the Maintenance Division Equipment Section at Central Office.

2.2. End-users will use VDOT Radio Channel 25 as the Statewide Flagging Channel and for talk around.

2.3. End-users can monitor Statewide Interagency Radio System (SIRS) 39.540 MHz on VDOT Radio Channel 50 but cannot transmit any radio traffic.

3. Appendix C - Marine Band Radios

3.1. End-users shall use the following Marine Radio Channel to transmit messages. **Channel 16** (156.800 MHz) – **is used for distress, safety, and calling**.

3.2. You can hail other vessels (if equipped) on Marine band radio Channel 16 and then move your conversation to another marine radio channel 68, 69, 71, or 72.

3.3. You may change to talk group **Zone 24 MAR** and turn the knob on your STARS portable radio so the display shows **CH 16**. You may then transmit your message. Your STARS portable has limited marine channels programmed into it.

3.4. If a **"MAYDAY"** call occurs, use the following guidelines below to report.

3.5. If you have a VHF marine radio, tune it to **Channel 16**

3.6. Distress signal "MAYDAY" is spoken three times.

3.7. The words "THIS IS" spoken once.

3.8. Name of vessel in distress (spoken three times) and call sign or boat registration number, spoken once.

3.9. Repeat "MAYDAY" and the vessel's name, spoken once.

3.10. Give the vessel's position by latitude or longitude or by bearing (true or magnetic, state which) and distance to a well-known landmark such as a navigational aid or small island, or in any terms which will assist a responding station in locating the vessel in distress. Include information on vessel movements, such as course, speed, and destination.

3.11. Nature of distress (sinking, fire, etc.).

3.12. Kind of assistance desired.

3.13. The number of persons onboard.

3.14. Obtain any other information which might facilitate rescue, such as length or tonnage of vessel, number of persons needing medical attention, color hull, cabin, masks, etc.

3.15. The word "OVER."

3.16. **Channel 13** (156.650 MHz) – **is used for inter-ship navigation** (bridge-to-bridge)

3.17. **Channel 13** is used for **vessels to transmit to the agency's movable bridges** in the navigable waters of Eastern Virginia. The following Districts have moveable bridges; Fredericksburg, Richmond, and Hampton Roads.

3.18. All moveable Bridge Operators shall answer to any vessel on Channel 13 requesting permission to open the bridge.

3.19. Bridge Operators shall advise the vessel of any opening restrictions for that specific bridge.

3.20. Bridge Operators shall advise the vessel to proceed through the opening.

3.21. Bridge Operators shall advise the vessel after they pass the opening that the bridge will close.

3.22. The only exception is the High Rise Bridge, which requires at least 24-hour notice before any bridge opening.

3.23. Channel 22A- is reserved for the U.S. Coast Guard (USCG) to relay marine information broadcasts. On occasion, you may hear on Channel 16 an announcement by the USCG telling all boaters that they have information that may be important to you. They would request that anyone wanting to listen to the information switch to channel 22A to hear the announcement.

3.24. If you cannot reach the USCG via the Marine Band radio, call the USCG Fifth District Command Center at 757-398-6231 to report any distress or maritime emergency. Ask for the watch officer to report the safety or distress call.

4. Appendix D - Phonetic Alphabet

4.1. Radio Operators should use the International Phonetic Alphabet, commonly known as the NATO alphabet. See below

A-Alfa	B-Bravo	C-Charlie	D-Delta	E-Echo
F-Foxtrot	G-Golf	H-Hotel	I-India	J-Juliet
K-Kilo	L-Lima	M-Mike	N-November	O-Oscar
P-Papa	Q-Quebec	R-Romeo	S-Sierra	T-Tango
U-Uniform	V-Victor	W-Whiskey	X-X-ray	Y-Yankee
Z-Zulu				

5. Appendix E – COMLINC MOA

5.1. The Commonwealth's Link to Interoperable Communication (COMLINC) memorandum of agreement (MOA) identifies radio communications solutions between Commonwealth's Statewide Agencies Radio System (STARS) and public safety radio communications system maintained or managed at the local level among localities. The memorandum of agreement constitutes an agreement between the Virginia Statewide Interoperability Coordinator (SWIC) representing the Commonwealth's Office of Public Safety and Homeland Security in concert with the Department of State Police (VSP). VDOT has committed all five Transportation Operations Centers through the MOA to cooperate concerning operating policy, operational procedures, roll call, advisory group, technical and maintenance support, and training curriculum of the COMLINC throughout the Commonwealth of Virginia.

5.2. The purpose of the MOA is to establish cooperative and mutually beneficial use of public safety communications interoperability equipment installed or used by VDOT. Relationships among state and local partners are vital to foster the success of COMLINC, the statewide radio communications interoperability solution. The MOA also sets forth the responsibilities of the partners as they relate to operational policies, operational procedures and maintenance, and technical support in Virginia at both the state and local levels. Last, the MOA satisfies 47 CFR 90.179 and 47 CFR 90.421 of the Federal Communications Commission (FCC) and is authorized by the Code of Virginia 2.2-221 (B) (6) and 2.2-222.2. The agency's UARC representative maintains a copy of the five signed MOAs.

6. Appendix F – COMLINC Training

6.1. The Commonwealth's Link to Interoperable Communication (COMLINC) training is available online in partnership with the Virginia Department of Health (VDH).

6.2. Go to: https://va.train.org/virginia/login

- Register for an account. It's free and straightforward.
- Once logged in, search for 1100692 – OEP/VSP Introduction to RIOS.
- Once logged in, search for 1102938 – OEP/VSP RIOS Basic Skills.

6.3. All end-users shall complete the training before operating the RIOS unit.

6.4. End-users may review the Commonwealth of Virginia Statewide Communications Interoperability Plan (COVA SCIP) and Commonwealth of Virginia Tactical Interoperability Communications Field Operations Guide (COVA TIC-FOG) to understand locality interoperability better.

7. Appendix G – STARS MOU

7.1. The Commissioner of Highways, along with the Department of State Police (VSP), has established a memorandum of understanding (MOU) between both agencies for intra-and inter-communications with authorized agencies under the Statewide Agencies Radio System (STARS). The MOU applies to all VDOT employees, including those working as contractors at VDOT. The agency's UARC representative maintains a copy of the signed MOU.

8. Equipment

8.1. The end user is responsible for keeping the key updated by using the equipment.

8.2. Should the equipment be dropped off the STARS system due to lack of use within three months, VDOT will be charged a service fee.

8.3. Each end-user shall initiate a push-to-talk (PTT) on each piece of equipment every thirty (30) day. Equipment not used sufficiently for a year is subject to recall.

8.4. VDOT shall not remove or transfer equipment from one vehicle to another. Any equipment installed or removed shall follow the MOU; refer to sections F, G, and H.

8.5. VDOT end-users shall never transfer or loan equipment. No equipment assigned to a vehicle shall be removed other than for service.

8.6. Equipment reported lost or stolen shall be immediately reported to the nearest State Police Division for a Trooper to respond to file a police report.

8.7. End-user shall cooperate with providing information to the investigating Trooper and the agency's UARC representative.

8.8. VDOT will be financially responsible for replacing lost, stolen, or damaged equipment.

8.9. All end-users shall be required to inventory all assets assigned to them.

9. Inventory

9.1. All end-users shall submit inventoried information during the annual audit or at any other time when requested by the agency's UARC representative.

9.2. All end-users must comply with the annual audit or be subject to their equipment being removed.

10. UARC Vehicle Tagging

10.1. Safety Service Patrol Vehicles:

- Tagging will follow, for example, DOT22SSP041 – DOT (agency acronym), 22 (year of the vehicle), and SSP041 (truck number).

10.2. Virginia Department of Transportation Vehicles:

- Tagging will follow, for example, DOTR22001 – DOT (agency acronym), R (Rental Vehicle), 22001 (agency property number placed on the door).

11. Appendix H – STARS Training

11.1. STARS training is available online in partnership with the Virginia State Police and under contract with Motorola Solutions.

11.2. The end-user must contact the agency's UARC representative to obtain a Motorola Solutions account. Once approved, an email from the Motorola Solutions account will provide a UserID and temporary password.

11.3. Go to: https://myaccount.motorolasolutions.com Motorola Learning eXperience Portal

11.4. Once logged in, search for the following courses:

- Once logged in, search for APX8500 Mobile, Control Station, and Consolette.
- Once logged in, search for APX Next Portable.
- Once logged in, search for DVR-LX
- Once logged in, search for MCD 5000 Deskset
- Once logged in, search for MCD 5000 Deskset (Document)

11.5. All end-users shall complete and pass the training before operating any STARS unit.

11.6. STARS equipment will be issued once the end-user individual has completed training.

11.7. All STARS end-users shall be required to pass training.

12. Appendix I - Two-Way Radio Maintenance & State Police Network Operations Center

12.1. The primary means to effect a radio repair for VDOT or STARS radios is to contact the Department of State Police Network Operations Center (NOC) at 866-813-3550 or via email at noc01@vsp.virginia.gov. Emergency requests shall be made to the NOC and VDOT's UARC representative. Vehicle operators are responsible for basic

maintenance and daily operator checks. When requesting a repair ticket to the NOC, please include the following:

- Type of radio (VDOT or STARS)
- Radio make and model number
- Name of the Area Headquarters, Residency, District, or Office Location with an address
- Contact name, phone number, and email address
- If known, identify the State Police Division located in, i.e., 1, 2, 3, 4, 5, 6 or 7
- Vehicle “R” or “P” number or base station
- Description of problem (receives but does not transmit, or no power to radio)

12.2. The Department of State Police Network Operations Center (NOC) will provide a job order number to track.

12.3. State Police Network Operations Center

12.4. The following STARS talk groups may be used to contact the Department of State Police Network Operations Center (NOC).

NOC talk group
MAINT_1

13. Appendix J – Incident Communication System (ICS) 205 Plan

13.1. An ICS-205 form shall be developed for any pre-planned large-scale events by the VDOT’s Incident Commander (IC) or designee and shall be attached to VDOT’s Incident Action Plan. For incidents resulting from an emergency or unforeseen Level III incident, an ICS-205 should be developed within the first sixteen (16) hours of the incident if it is expected to exceed twenty-four (24) hours. A copy of the ICS-205 shall be included in the next briefing when the Incident Commander changes out for relief.

form 205-fillable.pdf

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

1. Incident Name:	2. Date/Time Prepared: Date: Date Time: HHMM	3. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM

4. Basic Radio Channel Use:

Zone Grp.	Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	TX Tone/NAC	Mode (A, D, or M)	Remarks

5. Special Instructions:

6. Prepared by (Communications Unit Leader): Name: Signature: _____

ICS 205	IAP Page	Date/Time: Date

ICS 205
Incident Radio Communications Plan

Purpose. The Incident Radio Communications Plan (ICS 205) provides information on all radio frequency or trunked radio system talkgroup assignments for each operational period. The plan is a summary of information obtained about available radio frequencies or talkgroups and the assignments of those resources by the Communications Unit Leader for use by incident responders. Information from the Incident Radio Communications Plan on frequency or talkgroup assignments is normally placed on the Assignment List (ICS 204).

Preparation. The ICS 205 is prepared by the Communications Unit Leader and given to the Planning Section Chief for inclusion in the Incident Action Plan.

Distribution. The ICS 205 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit. Information from the ICS 205 is placed on Assignment Lists.

Notes:

- The ICS 205 is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period.
- The ICS 205 serves as part of the IAP.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Date/Time Prepared**	Enter date prepared (month/day/year) and time prepared (using the 24-hour clock).
3	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
4	**Basic Radio Channel Use**	Enter the following information about radio channel use:
	Zone Group	
	Channel Number	Use at the Communications Unit Leader's discretion. Channel Number (Ch #) may equate to the channel number for incident radios that are programmed or cloned for a specific Communications Plan, or it may be used just as a reference line number on the ICS 205 document.
	Function	Enter the Net function each channel or talkgroup will be used for (Command, Tactical, Ground-to-Air, Air-to-Air, Support, Dispatch).
	Channel Name/Trunked Radio System Talkgroup	Enter the nomenclature or commonly used name for the channel or talk group such as the National Interoperability Channels which follow DHS frequency Field Operations Guide (FOG).
	Assignment	Enter the name of the ICS Branch/Division/Group/Section to which this channel/talkgroup will be assigned.
	RX (Receive) Frequency (N or W)	Enter the Receive Frequency (RX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions. The name of the specific trunked radio system with which the talkgroup is associated may be entered across all fields on the ICS 205 normally used for conventional channel programming information.
	RX Tone/NAC	Enter the Receive Continuous Tone Coded Squelch System (CTCSS) subaudible tone (RX Tone) or Network Access Code (RX NAC) for the receive frequency as the mobile or portable subscriber would be programmed.

Block Number	Block Title	Instructions
4 (continued)	TX (Transmit) Frequency (N or W)	Enter the Transmit Frequency (TX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions.
	TX Tone/NAC	Enter the Transmit Continuous Tone Coded Squelch System (CTCSS) subaudible tone (TX Tone) or Network Access Code (TX NAC) for the transmit frequency as the mobile or portable subscriber would be programmed.
	Mode (A, D, or M)	Enter "A" for analog operation, "D" for digital operation, or "M" for mixed mode operation.
	Remarks	Enter miscellaneous information concerning repeater locations, information concerning patched channels or talkgroups using links or gateways, etc.
5	**Special Instructions**	Enter any special instructions (e.g., using cross-band repeaters, secure-voice, encoders, private line (PL) tones, etc.) or other emergency communications needs). If needed, also include any special instructions for handling an incident within an incident.
6	**Prepared by** (Communications Unit Leader) • Name • Signature • Date/Time	Enter the name and signature of the person preparing the form, typically the Communications Unit Leader. Enter date (month/day/year) and time prepared (24-hour clock).

14. Appendix K – Important Contact(s)

Virginia	Phone
United States Park Police (USPP) – District II - George Washington Memorial Parkway	703-285-1000
Metropolitan Washington Airports Authority (MWAA) Police – Dulles Toll Road	703-417-2400
Richmond Metropolitan Transportation Authority (RMTA)	804-205-7223
I-66 Express Mobility Partners (EMP)	833-643-2867
Transurban Express Lanes – Traffic Control Room	571-419-6046
Stafford TOC	540-658-4340
Virginia State Police Division I	804-609-5656
Virginia State Police Division II	540-829-7401
Virginia State Police Division III	434-352-7128
Virginia State Police Division IV	276-228-3131
Virginia State Police Division V	757-727-7288
Virginia State Police Division VI	540-375-9500
Virginia State Police Division VII	703-803-2660
Virginia State Police Fusion Center *Suspicious Terrorist Activity*	877-4VA-TIPS
Virginia Division of Capitol Police (DCP)	804-786-2120
Virginia Conservation Police (DWR)	800-237-5712

Virginia Conservation & Recreation Police (DCR)	800-237-5712
Virginia Marine Police (MRC)	800-541-4646
Virginia Port Authority Police (VPA)	757-683-2194
Chesapeake Bay Bridge-Tunnel District Police (CBBT)	757-331-2960
Virginia Department of Emergency Management (VDEM) – Situational Awareness Unit (SAU)	804-674-2400
Railroad/Transit	**Phone**
Amtrak Police	800-331-0008
Norfolk Southern Police	800-453-2530
CSX Police	800-232-0144
Washington Metropolitan Area Transit Authority (WMATA) Police	202-962-2121
Maryland	**Phone**
Maryland State Highway Administration (SHA) – Statewide Operations Center (SOC)	410-582-5605
Maryland Transportation Authority (MDTA) – Authority Operations Center (AOC) South	410-537-6615
Maryland Transportation Authority (MDTA) – Authority Operations Center (AOC)	410-537-1233
Maryland State Police – Rockville Barrack	301-251-8000
Maryland State Police – Frederick Barrack	301-600-4150
Maryland State Police – Hagerstown Barrack	301-766-3800
Maryland State Police – Forestville Barrack	301-568-8101
Maryland State Police – La Plata Barrack	301-392-1200
Maryland State Police – Princess Anne Barrack	443-260-3700
Maryland Transportation Authority (MDTA) Police – Governor Harry W. Nice/Senator Thomas Middleton Bridge Detachment	410-537-7911
Maryland Natural Resources Police (NRP)	410-260-8888
Maryland Coordination and Analysis Center (MCAC) *Suspicious Terrorist Activity*	1-800-497-TIPS
District of Columbia	**Phone**

District Department of Transportation (DDOT) - Traffic Management Center (TMC)	202-671-3368
DC Metropolitan Police	202-727-9099
Metropolitan Area Transportation Operations Coordination (MATOC)	202-612-3400
West Virginia	**Phone**
West Virginia Division of Highways (WVDOH) – Statewide Traffic Management Center (TMC)	304-558-3505 304-558-3028
West Virginia State Police (WVSP) – Communications Center	304-746-2151
Kentucky	**Phone**
Kentucky Transportation Cabinet (KTC) – Statewide Transportation Operations Center (TOC)	502-564-2080
Kentucky State Police (KSP) – Post 9 – Pikeville	606-433-7711
Kentucky State Police (KSP) – Post 12 – Hazard	606-435-6069
Kentucky State Police (KSP) – Post 10 – Harlan	606-573-3131
North Carolina	**Phone**
North Carolina Department of Transportation (NCDOT) – State Transportation Operations Center (STOC)	(919) 825-2603 or 877-627-7862
North Carolina State Highway Patrol (SHP)	(919) 733-3861
Tennessee	**Phone**
Tennessee Department of Transportation (TDOT) Region 1 – Knoxville Traffic Management Center TDOT – Knoxville HELP Program Statewide Transportation Management Office	 865-594-3981 865-215-4010 615-253-1122
Tennessee Department of Safety & Homeland Security – Tennessee Highway Patrol (THP) – District V – Fall Branch	800-737-2682
Federal	**Phone**
United States Department of Transportation (USDOT) – Transportation Operations Center (TOC)	202-366-1863
Federal Aviation Administration (FAA) – Washington Operations Center (WOC)	202-267-3333

National Transportation Safety Board (NTSB) – 24-hour Response Operations Center	844-373-9922
Department of the Interior – National Park Service – Skyline Drive	1-800-732-0911
Department of the Interior – National Park Service – Blue Ridge Parkway	828-348-3400
United States Coast Guard – Sector Maryland – National Capital Region Upper Chesapeake and its Tributaries	410-576-2693
United States Coast Guard – Sector Virginia – Lower Chesapeake and its Tributaries	757-483-8567