

JTLS-0249 Improve Personnel Reporting

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1.0 Summary of Model Change Request

JTLS must implement a robust and complete personnel report that includes number of personnel in theater, number killed, number wounded, number in hospital, etc.

There are three known reporting format requirements:

- The Norwegian Armed Forces uses a Spreadsheet to report daily personnel status.
- The North Atlantic Treaty Organization (NATO) has a Allied Data Publication 3 (ADatP-3) format for a Personnel Report (PERSREP).
- The United States Message Text Format (USMTF), sometimes referred to as the US Message Transfer Format, has a Personnel Status (PERSTAT) Report.

The desire is to create a personnel reporting capability within JTLS that can support each of these reporting requirements.

2.0 Design Summary

A new order will be created called Personnel Report. This order will allow the user to specify which report version is desired, the unit and its subordinates for which the report should be generated, and the periodicity of the report. Additional information will be needed to link database personnel Combat Systems to the various personnel reporting categories required by the various report formats.

The user can have as many Personnel Reports generated as desired.

3.0 Detailed Design

3.1 Background

This section provides details on the contents of all three Personnel Summary Reports that are to be supported with this ECP.

3.1.1 Norway Personnel Spreadsheet

3.1.2 NATO ADatP-3 PERSREP Message

Table 1 shows a summary of every allowable message record in a PERSREP message. The portions of the message that will be supported by this design are listed as “Bold Green”. The portions of the message that will not be supported are shown in “Red”. The explanation lists where the data will come from and why the unsupported data is not included as part of this design.

Table 1. NATO ADatP-3 PERSREP Message

LINE	LINE AND EXPLANATION
1	EXER/CG18/ADDID:COBRA GOLD 18//
	Record ID: EXER is hard coded in the message
	Field 1: Is the exercise name. This is obtained from the name of the scenario.
	Field 2: Is optional, and since JTLS does not have the concept of a exercise long name, the field will not be included in the message.
2	OPER/DENY FLIGHT/SACEUR 106/PAPER WASTE/ORANGE//
	The OPER line cannot be included if the EXER record is used. This line will not appear in the message.
3	MSGID/PERSREP/SHAPE/15/DEC/FIN/5//
	Record ID: MSGID is hard coded in the message.
	Field 1: PERSREP is hard coded in the message
	Field 2: Is the originator of the message. It will be the Short Name of the unit that has been told to generate a PERSREP. This report will contain personnel information for this unit and all of its subordinates.
	Field 3: Is the message serial number. Each PERSREP message will be given a unique number starting with 1 up to 9999999, the size limitation of the field. We do not expect to exceed that number in any one given exercise.
	Field 4: Three character month name. This will be obtained from the Date Time Group of when the message is generated,
	Field 5: Qualifier. This is an optional field and will not be supported.
4	REF/A/NUC1/SHAPE/DMY:02062003/AIR 051/NOTAL//
	This is an optional record, and JTLS has no ability to fill in the reference data.

Table 1. NATO ADatP-3 PERSREP Message

LINE	LINE AND EXPLANATION
5	DTG/041405ZAPR1995//
	Record ID: DTG is hard coded in the message
	Field 1: The DTG when the message was generated.
6	ORGIDDF/1-503IN/BN/US/INF/RECON/ABN/-/2BDE/A//
	This is an optional record. It will not be supported as part of this design.
7	ORGID/1-503IN/BN/US/INF/RECON/ABN/-/2BDE/A/USA23434//
	Record ID: ORGID is hard coded in the message
	Field 1: Unit Name. This will be filled with the short name of the unit in the database.
	Field 2: Unit Size Indicator. The method with which this field will be filled is dependent on the type of unit being reported. The logic is explained in detail in Section 3.3.2.1 .
	Field 3: Country Code of the unit. The Country Code of the unit's database specified Political Country.
	Field 4: Unit Role Indicator A. The ORGID record exists in several already supported NATO ADatP-3 messages, such as the OWNSITREP. It has proven to be an issue in that JTLS currently can only fill the first of four role indicators with the Organization Type associated with the unit's Graphics Symbol. This same methodology will be used for this record in the resulting PERSREP message. The Design Team spent considerable time attempting to fix this issue, but all reviewed solution went beyond the time allocated to support this design. In the future the customer should consider a future improvement to solve this issue.
	Field 5: Unit Role Indicator B.
	Field 6: Unit Role Indicator C.
	Field 7: Unit Role Indicator D.
	Field 8: Higher Formation Name. The Short Name of the unit's Higher Headquarters
	Field 9: Unit Service: The service of the unit, such as Army, Navy, Air Force, etc.
Field 10: Unit Identification Code (UIC). This will be filled with the UIC of the unit in the database.	
8	1PERSDAT /CATEGORY/WARAUTH/EFFSTR /ATTACH/DETACH/DEAD /INCAP/MISS /O-POW/E-POW
	Record ID: 1PERSDAT is hard coded in the message
	Field 1: The hard coded title of record subfields. There is a line for each of the following personnel categories:
	/OFF-MALE/ 375/ 363/ -/ 6/ 3/ 6/ 1/ 1/ 15
	Male Officers

Table 1. NATO ADatP-3 PERSREP Message

LINE	LINE AND EXPLANATION
	/OFF-FEM / 87/ 88/ -/ -/ 1/ -/ -/ -/ -
	Female Officers
	/OFF-TOT / 462/ 451/ -/ 6/ 4/ 6/ 1/ 1/ 15
	Total Officer Count
	/WO-NCO-M/ 1400/ 1372/ -/ 12/ 16/ 33/ 4/ -/ 61
	Male Warrant Officers (WO) and Non-Commissioned Officers (NCO)
	/WO-NCO-F/ 348/ 328/ -/ -/ -/ 2/ 1/ -/ -
	Female WO and NCOs
	/WO-NCO-T/ 1748/ 1700/ -/ 12/ 16/ 35/ 5/ -/ 61
	Total WO and NCOs
	/ENL-MALE/14000/ 13896/ -/ 24/ 129/ 256/ 18/ 6/ 647
	Male Enlisted personnel
	/ENL-FEM / 3480/ 3457/ -/ -/ 8/ 16/ -/ -/ -
	Female Enlisted personnel.
	/ENL-TOT /17480/ 17353/ -/ 24/ 137/ 272/ 18/ 6/ 647
	Total Enlisted personnel.
	/OTH-MALE/ -/ 36/ -/ -/ -/ -/ -/ -/ -
	Other Male personnel
	/OTH-FEM / -/ 27/ -/ -/ -/ -/ -/ -/ -
	Other Female personnel
	/OTH-TOT / -/ 63/ -/ -/ -/ -/ -/ -/ -
	Total other personnel
	/NONCBT-M/ -/ -/ 781/ -/ -/ -/ -/ -/ -
	Male non-combatants
	/NONCBT-F/ -/ -/ 567/ -/ -/ -/ -/ -/ -
	Female non-combatants
	/NONCBT-T/ -/ -/ 1348/ -/ -/ -/ -/ -/ -
	Total non-combatants.

Table 1. NATO ADatP-3 PERSREP Message

LINE	LINE AND EXPLANATION
	/GND-TOT / 19690 / 19567 / 1348 / 42 / 157 / 313 / 24 / 7 / 723 //
	Grand Total of all personnel
	Field 2: Authorized. This will be filled with the Table of Organization and Equipment (TOE) of the units involved.
	Field 3: Effective Strength. This is the number of people still in the unit. This is the sum of the available personnel and personnel in maintenance.
	Field 4: Attached. This is the number of people attached to the unit. The logic that will be used to fill this count is described in Section 3.3.2.2 .
	Field 5: Detached. This the number of people detached from the unit. The logic that will be used to fill this count is described in Section 3.3.2.3 .
	Field 6: Dead. The number of people that have been Killed In Action (KIA).
	Field 7: Incapable. The number of people that have been labeled as Wounded In Action (WIA)
	Field 8: Number of people missing in action. JTLS-GO currently does not model personnel missing in action, but the model does represent deserters. Although the Design Team expects few deserters on the NATO side, the field will be filled if Psychological Operations result in deserters.
	Field 9: Own Prisoners of War (POW). JTLS-GO currently does not model POWs. This field will always contain a "dash" indicating no own POWs to report.
	Field 10: Enemy POWs. Again, this field cannot be supported by JTLS.
9	DTG/041405ZAPR1995//
	Record ID: DTG is hard coded in the message
	Field 1: The DTG when the information was collected. This DTG will be the same as the DTG reported in Record 5.
10	ASSESPER/2/4//
	Record ID: ASSESPER is hard coded in the message.
	Field 1: Personnel Strength Rating. The logic that will be used to fill this field is described in Section 3.3.2.4 .
	Field 2: Manpower Fatigue Rating. The logic that will be used to fill this field is described in Section 3.3.2.5 .

Table 1. NATO ADatP-3 PERSREP Message

LINE	LINE AND EXPLANATION
11	GENTEXT/COMMANDERS ASSESSMENT/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
	Record ID: GENTEXT is hard coded in the message
	Field 1: Hard-coded with the term: COMMANDERS ASSESSMENT.
	Field 2: Although the model cannot generate a Commander’s Assessment, the record will be included in the message, allowing the user to edit the generated message prior to sending the message to the exercise audience. The field will be filled with the words: NO ADDITIONAL INFORMATION.

3.1.3 USMTF PERSTAT Message

Table 2 shows a summary of every allowable message record in a PERSTAT message. The portions of the message that will be supported by this design are listed as “Bold Green”. The portions of the message that will not be supported are shown in “Red”. The explanation lists where the data will come from and why the unsupported data is not included as part of this design.

Table 2. USMTF PERSTAT Message

LINE	LINE AND EXPLANATION
1	EXER/CG18/ADDID:COBRA GOLD 18//
	Record ID: EXER is hard coded in the message
	Field 1: Is the exercise name. This is obtained from the name of the scenario.
	Field 2: Is optional, and since JTLS does not have the concept of a exercise long name, the field will not be included in the message.
2	OPER/DENY FLIGHT/SACEUR 106/PAPER WASTE/ORANGE//
	The OPER line cannot be included if the EXER record is used. This line will not appear in the message.
3	MSGID/PERSTAT/SHAPE/15/DEC/FIN/5//
	Record ID: MSGID is hard coded in the message.
	Field 1: PERSREP is hard coded in the message
	Field 2: Is the originator of the message. It will be the Short Name of the unit that has been told to generate a PERSREP. This report will contain personnel information for this unit and all of its subordinates.
	Field 3: Is the message serial number. Each PERSREP message will be given a unique number starting with 1 up to 9999999, the size limitation of the field. We do not expect to exceed that number in any one given exercise.

Table 2. USMTF PERSTAT Message

LINE	LINE AND EXPLANATION
	Field 4: Three character month name. This will be obtained from the Date Time Group of when the message is generated,
	Field 5: Qualifier. This is an optional field and will not be supported.
	Field 6: Serial number of the qualifier. This is an optional field and will not be supported.
4	REF/A/NUC1/SHAPE/DMY:02062003/AIR 051/NOTAL//
	This is an optional record, and JTLS has no ability to fill in the reference data.
5	PERID/080000ZSEP18/082359ZSEP18 /090000ZSEP18 //
	Record ID: PERID is hard coded in the message
	Field 1: The DTG of the starting time of the period covered by the message
	Field 2: The DTG of the ending time of the period covered by the message
	Field 3: The DTG of the time at which the report is generated.
6	UNITID/2BDE//
	Record ID: UNITID is hard coded in the message
	Field 1: Unit Name. This will be filled with the short name of the unit that is reporting its personnel status. This report will be for this named unit and all of its subordinates.
8	7PERSTAT
	Record ID: 1PERSDAT is hard coded in the message
	/DE/PC/AUTH/ASGN/ONHAND/GAIN/REPL/RTD/DEPL/TOTL/CMNT
	Table Heading: The hard coded title of record subfields. There is a message limit of up to 99 data element records, but since there are only seven allowable personnel classifications, there will be up to 7 lines of data provided for this record.
	/01/0/25/23/23/00/02/01/00/-
	Sub-Field 1: Data Element (DE). Each table record will be sequentially numbers.
	Sub-Field 2: Personnel Classification (PC). See Table 4 in Section 3.3.3.1 lists the possible values.
	Sub-Field 3: Authorized (AUTH). This will be the rolled-up personnel TOE for the unit and all sub-ordinates.
	Sub-Field 4: Assigned (ASGN). The method that will be used to compute assigned personnel is discussed in detail in Section 3.3.3.2 .
	Sub-Field 5: On Hand. The method that will be used to compute on hand personnel is discussed in detail in Section 3.3.3.3 .
	Sub-Field 6: Gain. The method that will be used to compute gain personnel is discussed in detail in

Table 2. USMTF PERSTAT Message

LINE	LINE AND EXPLANATION
	Sub-Field 7:
	Sub-Field 8:
	Sub-Field 9:
	Sub-Field 10:
9	DTG/041405ZAPR1995//
	Record ID: DTG is hard coded in the message
	Field 1: The DTG when the information was collected. This DTG will be the same as the DTG reported in Record 5.
10	ASSESPER/2/4//
	Record ID: ASSESPER is hard coded in the message.
	Field 1: Personnel Strength Rating. The logic that will be used to fill this field is described in Section 3.3.2.4 .
	Field 2: Manpower Fatigue Rating. The logic that will be used to fill this field is described in Section 3.3.2.5 .
11	GENTEXT/COMMANDERS ASSESSMENT/HERE YOU MAY ADD ANY COMMENTS IN FREE TEXT OF AN UNLIMITED NUMBER OF CHARACTERS THAT IS REQUIRED BY THE MESSAGE//
	Record ID: GENTEXT is hard coded in the message
	Field 1: Hard-coded with the term: COMMANDERS ASSESSMENT.
	Field 2: Although the model cannot generate a Commander’s Assessment, the record will be included in the message, allowing the user to edit the generated message prior to sending the message to the exercise audience. The field will be filled with the words: NO ADDITIONAL INFORMATION.

3.2 Basic Design

Table 3. New Personnel Report Order

3.3 Details On Each Of The Three Message Formats

This section provides implementation details for each of the three message formats that are to be supported by this ECP.

3.3.1 Special Information For Norway Personnel Spreadsheet

3.3.2 Special Information For NATO PERSREP

This section contains details on how several of the more complicated fields within this report will be filled.

3.3.2.1 Unit Size Indicator - ORGID Record - Field 2

3.3.2.2 Attached Personnel - 1PERSDAT - Field 4

3.3.2.3 Detached Personnel - 1PERSDAT - Field 5

3.3.2.4 Personnel Strength Rating - ASSESPER - Field 1

(NU) ABOVE 90% (NU) 1 (NU) 75-90% (NU) 2 (NU) 60-75% (NU) 3 (NU) BELOW 60% (NU) 4

3.3.2.5 Manpower Fatigue Rating - ASSESPER - Field 2

(NU) FULLY RESTED (NU) 1 (NU) OK IN 6 (NU) 2 (NU) OK IN 12 (NU) 3 (NU) NON OP (NU) 4

3.3.3 Special Information For USMTF PERSTAT

3.3.3.1 Personnel Classification Sub-Field In 7PERSTAT Record

Table 4. Allowable Personnel Classifications

NAME	MESSAGE CODE
Academy Cadet	AC

Table 4. Allowable Personnel Classifications

NAME	MESSAGE CODE
Civilian	C
Enemy Civilian	CE
Commissioned Officer	O
Contractor Civilian	CC
Enlisted	E
Interned Civilian	CI
Political / Civil Official	PC
Warrant Officer	W

3.3.3.2 Assigned Personnel Sub-Field In 7PERSTAT Record

on hand, maintenance, unavailable - hru count

3.3.3.3 On Hand Personnel Sub-Field In 7PERSTAT Record

on hand maintenance unavailable

3.3.3.4 Gain Personnel Sub-Field In 7PERSTAT Record

4.0 Data Changes

No data changes are required to implement this design.

5.0 Order Changes

The new Personnel Report Order will be added to the system. This will be a Player Order. Details of this order were explained in [Table 3](#).

6.0 JODA Changes

No JODA Data System parameter, structure, or protocol changes are required to implement this design.

7.0 Test Plan

Text *[Describe the basic test objectives and procedures. This Test Plan section may be published as a separate document.]*

7.1 Test 1 Title

Purpose: *[Describe the specific feature, function, or behavior to be tested or measured.]*

Step 1: Text

Step 2: Text

Expected Results: *[Describe the specific model behavior to be observed.]*

Expected Results:

