

## ASPR TRACIE Technical Assistance Request

**Requestor:**

**Requestor Phone:**

**Requestor Email:**

**Request Receipt Date (by ASPR TRACIE):** 28 June 2018

**Response Date:** 28 June 2018

**Type of TA Request:** Standard

### Request:

The requestor asked ASPR TRACIE for assistance in identifying systems that are available for patient tracking.

### Response:

The ASPR TRACIE Team reviewed the [Patient Movement and Tracking Topic Collection](#) and conducted a general search for patient tracking systems being used by local and state health officials. We also conducted a search of patient tracking systems specific to Region 4, but were unable to find any open source documents.

With that said, and based on subject matter expert input, we note that the systems listed below are actively being used by a number of facilitates/jurisdictions. ASPR TRACIE does not endorse any particular system or vendor. We acknowledge that there are many other systems in use.

- [EMTrack](#)
- [HCstandard/ HC Patient Tracking](#)
- [StatusNet 911](#)

Section I below provides information on federal patient tracking systems and Section II provides links to helpful, more general patient tracking resources.

## I. Federal Patient Tracking Systems

ASPR TRACIE. (2015). [Joint Patient Assessment and Tracking System \(JPATS\) Overview Factsheet](#).

This factsheet and PowerPoint presentation includes an overview of the Joint Patient Assessment and Tracking System (JPATS) to include background/history, functionality, integration into the Disaster Medical Information Suite, and common questions from state and local jurisdictions. Information about JPATS system requirements, the implementation process and cost, and types of assistance available through the U.S. Department of Health and Human Services Assistant Secretary for Preparedness and Response is also provided.

Rich, T., Biddinger, P., Zane, R., et al. (2011). [Recommendations for a National Mass Patient and Evacuee Movement, Regulating, and Tracking System.](#)

Appendix C, Existing Systems: Tracking Systems, contains a review of patient tracking systems used at the local or regional level, and used or in development (at the time it was published) at the federal level. Excerpt provided here for requestor's convenience:

### **Systems Used or in Development at the Federal Level**

The U.S. Department of Defense uses two systems for tracking and regulating military casualties—Joint Patient Tracking Application (JPTA) and TRAC2ES. Another system (ETAS) was designed for evacuee tracking and exists as a prototype. Both the DoD and the U.S. Department of Health and Human Services (HHS) are currently considering different options for expanding their capacity to track and regulate civilian patients and evacuees. In particular, in response to an initiative from the DoD's Office of the Secretary of Defense and Office of the Secretary of Homeland Defense, and supported by the NORAD-NORTHCOM Surgeon's Directorate, DoD is considering options for establishing a system that will provide information on the movement, regulation, and tracking of all DoD and civilian patients and/or evacuees moved by the DoD during contingency operations resulting from a man-made or natural disaster in the U.S. Northern Command (USNORTHCOM) Area of Responsibility.

Any new system(s) would be coordinated with the Federal government's National Disaster Medical System (NDMS). This system augments the Nation's medical response capability by establishing a single integrated National medical response capability for assisting State and local authorities in dealing with the medical impacts of major peacetime disasters.

**JPTA.** The DoD uses the Joint Patient Tracking Application (JPTA) to track the location of casualties treated in military hospitals around the world. JPTA was first deployed in January 2004 and, as of June 2006, was used in 25 military hospitals. DoD ultimately plans to use JPTA in all military hospitals. JPTA has never been used in a civilian setting; a "disaster relief" version of JPTA was developed for Katrina, but it was not used.

JPTA has a patient registration module; some of the fields in this module, including the arrival date, are automatically filled in via a link to TRAC2ES (see below). JPTA records the patient's treatment status, hospital and room number, and disposition/referral destination. If patients are later transported to another military hospital, the patient's existing JPTA record is updated. Electronic medical records and other files also can be attached to JPTA records and accessed by health care providers as the patient moves from one military or Veterans Health Administration facility to another. JPTA users have different access privileges, some being limited to a single hospital while others can view system-wide data and reports. According to JPTA personnel who have worked with hospitals using the system, JPTA benefits hospitals in three primary ways: (1) patients have "visibility" outside of the hospital, thus reducing the number of phone inquiries about whether a patient is at a hospital, (2) hospital staff have advanced warning about patient arrivals via TRAC2ES, and (3) JPTA is a convenient way to transfer electronic medical records between medical providers.

**TRAC2ES.** As noted above, the DoD has linked JPTA to the Transportation Command Regulating and Command and Control Evacuation System (TRAC2ES) system. TRAC2ES has a transportation focus: its goal is to effectively use military patient transport planes so that planes arrive to pick up patients in a timely manner and so that they have the necessary resources on board to care for the patient (e.g., a nurse, blood, a monitor). Patient movements are associated with an event; in 2005, two such events were Operation Iraqi Freedom and Katrina. Once an event is defined, a patient movement request (PMR) can be generated. The PMR includes identifying information on the patient, clinical information (in particular, medical resources needed on the airplane), the patient's location (i.e., where the plane will pick up the patient), and the patient's destination (typically a military hospital). The patient's location is updated once s/he boards the plane, when the patient arrives at the destination airfield, and when the patient arrives at the hospital. If the patient is subsequently flown to another military hospital, that information is appended to the patient's TRAC2ES record. TRAC2ES alerts hospitals about incoming patients by sending a message to JPTA.

TRAC2ES was been used to track the movement of U.S. citizens being rapidly evacuated from Lebanon in the summer of 2006. As such, it is the only Federal/national tracking system that has been deployed for evacuees (as opposed to patients). It is not, however, fully scaled up and it assumes the presence of "handlers" like the National Guard or other personnel to enter the data on evacuees at each checkpoint; it has not yet been integrated into civilian disaster response.

**ETAS.** In addition to TRAC2ES and JPTA, the DoD has developed a prototype evacuee tracking system called Emergency Tracking Accountability System (ETAS). This system evolved from the DoD's Non-Combatant Evacuation and Repatriation Operations (NEO) Tracking System, or NTS. First deployed in 1996, in part to support a possible non-combatant evacuation in South Korea, NTS has been used for non-combatant evacuations in Turkey, Lebanon, and other locales. In 2005, DoD requested development of an evacuation tracking system for civilian evacuation operations in the U.S., which led to development of the ETAS prototype. ETAS's goals were to: improve the efficiency of evacuation operations; manifest and track evacuees using the FEDEX/UPS model of barcode scanning at departures and arrivals; use robust, redundant communications for transmission of encrypted evacuee data; and enhance coordination, control, and management of evacuees. ETAS currently does not have a sponsor and is unfunded within DoD.

## II. General Patient Tracking Resources

California Healthcare Foundation. (2011). [Using Tracking Tools to Improve Patient Flow in Hospitals.](#)

This issue brief provides general information on the use of real-time location systems (RTLS) to track patients at hospitals. It includes real-world examples of how hospitals are using RTLS and best practices for implementing patient tracking.

Cantrill, S., and Pons, P. (2009). [HAvBED 2: Hospital Available Beds for Emergencies and Disasters: A Sustainable Bed Availability Reporting System](#). Denver Health.

The authors provide an overview of the Hospital Available Beds for Emergencies and Disasters (HAvBED) reporting system, with chapters dedicated to definitions and data elements, data entry, HAvBED and the National Incident Management System, and recommendations for facilities interested in implementing the system.

Hopper, K. (n.d.). [Federal Patient Movement](#). (Accessed 6/28/18.)

This presentation highlights the various modes of patient evacuation and transport and tracking, federal coordination centers, the national ambulance contract, and factors that need to be considered when planning and activating federal patient movement.

Institute of Medicine of the National Academies. (2015). [Regional Disaster Response Coordination to Support Health Outcomes: Surge Management—Workshop in Brief](#).

This document summarizes three regional workshops on effective medical and public health response to large-scale disasters. Challenges, opportunities, and lessons learned related to patient tracking and evaluation are included. The first section of the document provides some important bullet points to consider [when](#) planning large-scale patient movement.

King County Healthcare Coalition. (2010). [Regional Medical Evacuation and Patient Tracking Mutual Aid Plan \(MAP\)](#).

This plan provides an operational overview of the King County (WA) regional mutual aid plan that can be applied when: 1) an individual facility is in need of resources; 2) a disaster occurs that forces evacuation; Region 6 is “incapable of handling patient volume.” Section 7 focuses on patient identification and tracking and includes sample tracking form templates.

Northwest Florida Healthcare Coalition. (2015). [Patient Tracking Monitoring Plan](#).

This plan outlines how patients are tracked by EMS and Hospitals in the Northwest Florida Healthcare Coalition. It also provides an overview of the patient tracking for the broader region and state.