


“When the Circus Comes To Town”

Medical Coverage & Coordination For Special Athletic Events

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“We would like to have an event in your town!”

What kind of events?

What venue?

Pluses?

Minuses?

Special Athletic Events

Traditional Athletic Events

- Sports Championships
 - Little League World Series
 - Region High School
 - College Championships
- Traditional Road Races
 - 10 K Races
 - 10 Milers
 - Road Bike Races

Extreme Sports Events

- Marathons



- Triathlons



- Mountain Bike Events



- “X Games”



- Rodeos



- Adventure Racing



A poster for the Primal Quest Badlands 2009 expedition adventure race. The top section is dark red with a white logo on the left and the text "PRIMAL QUEST BADLANDS 2009 PRESENTED BY spot a Don Mann Production" on the right. The middle section shows a photograph of two cyclists in a rugged, mountainous landscape. The bottom section is dark red with the text "EXPEDITION ADVENTURE RACE www.ecoprimalquest.com" and "The World's Most Challenging Human Endurance Competition". Logos for sponsors like "South Dakota State University" and "Rapid City" are visible in the bottom right corner of the photo area.

**“What Do They Want
From Us?”**

“Just wanted to let you know...”

- Is there an expectation of coverage?
- Providing their own coverage
 - Assess Level of Service Needed
 - Assess Level of Service Provided



Breaking News

LIVE EMT Squirrel Saves Life With CPR!

TVN
EXCLUSIVE



Requested a Standby

- Level of Care Requested
- Level of Care Required

Extended Coverage

- Length of Event
 - Hour?
 - Days?
- Advanced Levels of Care
 - ALS
 - Wilderness Medicine
 - Advanced Practice Paramedic
 - Physician

Needs Assessment

Risks Assessment

- Potential Hazards
 - Environment Hazards, i.e. Heat, Cold, Terrain
 - Flora and Fauna, i.e. Poison plants, snakes, insects, deer, cows, lions, tigers and bears (Oh, My!), etcetera.
- Potential for Injury/Illness Related to the Event.
 - Participants
 - Event Staff/Volunteers
 - Bystanders









Other Risks

- Terror Risk Potential
 - Does the event present a threat for terrorist activity?
 - High profile venue
 - Urban area
 - Large crowds
 - High profile or controversial dignitaries







Other Risks (cont.)

- Protesters
 - Environmentalist



Other Risks (cont.)

- Protesters
 - Environmentalist
 - Animal Rights



Other Risks (cont.)

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 - Environmentalist
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 - Political



Other Risks (cont.)

- Protesters
 - Environmentalist
 - Animal Rights
 - Political
 - Generalized Squirrel Turds



Other Risks (cont.)

- Protesters
 - Environmentalist
 - Animal Rights
 - Political
 - Generalized Squirrel Turds
- Coordination when a treat is identified
 - Be involved in the coordination
 - If you have questions, ask them
 - Know the WHOLE plan (as much as possible)

Venue Requirements

- By the Event Organizers
- Event Coverage
 - Event Sight/Course
 - Event Periphery
- Back-up Units

Extent of the Venue

- Single Service Area
 - Single Crew Response Area
 - Agency response Area
- Multiple Agency Areas
 - Multiple Agency Area within a Locality
 - Multiple Localities, i.e. Town/City, Counties, States.

Impact on Resources Assessment

- Event vs. Community
- Cost vs. Benefit

Coordination with Other Area Agencies

- Other EMS Agencies
- Hospitals
- Air Medevac Resources
- Fire Services
- Law Enforcement
- Municipal Services
- Private Companies, i.e. Sponsors, Hotels, Suppliers, etc.



Event Critique/Action Items

- What Went Right?
- What Went Wrong?
- Would You Do It Again?



**A Case Study:
Lynchburg Regional Air
Show - 2011**

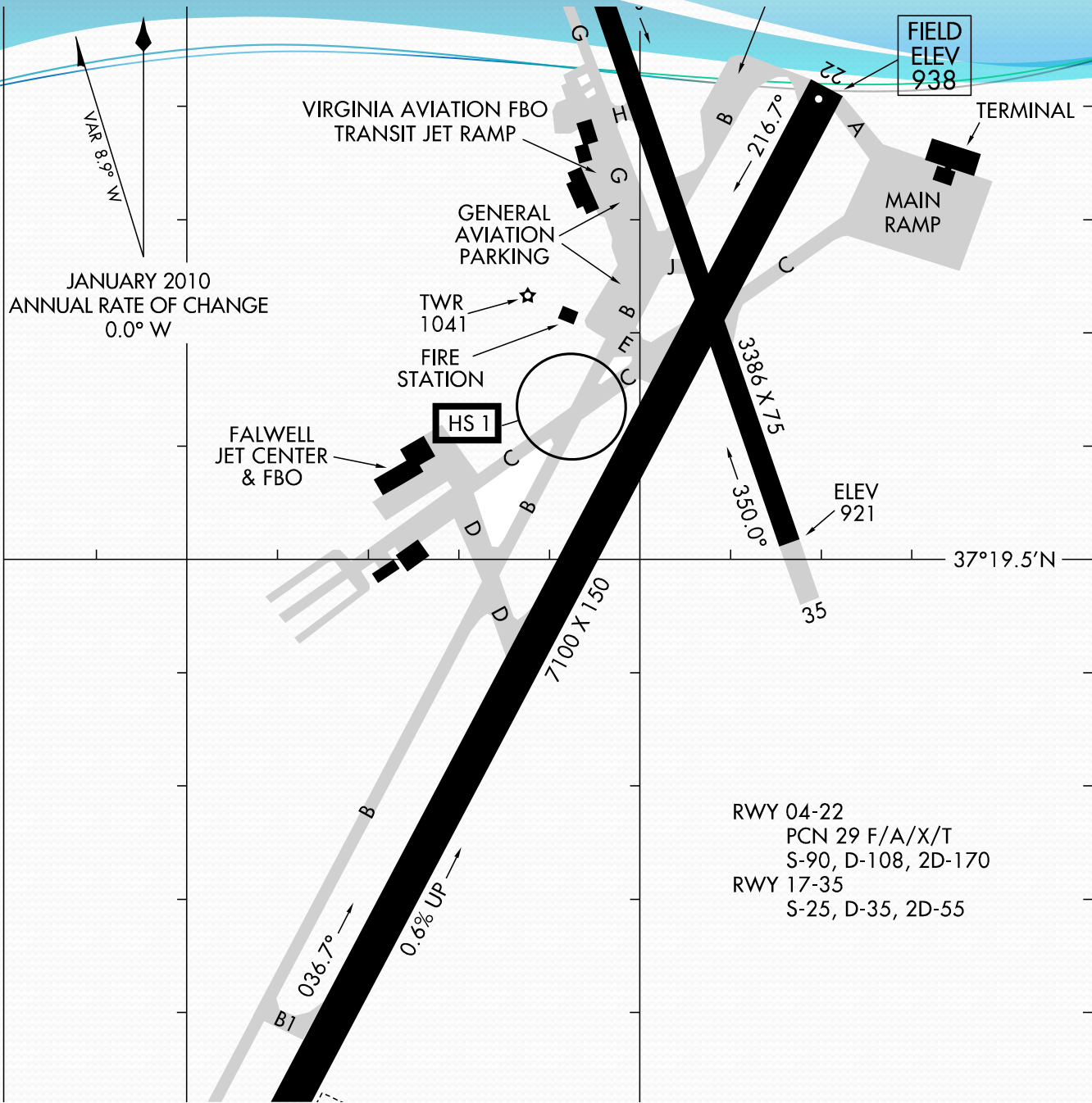
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Lynchburg Regional Airshow STIP Tent Deployment

Review & Critique

NE-3 05 MAY 2011 to 02 JUN 2011



NE-3, 05 MAY 2011 to 02 JUN 2011

Lynchburg Regional Air Show

- U.S. Navy Blue Angels
- The Black Daggers U.S. Army Special Operations Parachute Team
- The Flying Circus (Barnstormers, Bi-planes, Wing walkers, and Skydivers)
- Static Displays

Lynchburg Regional Air Show

- May 21 & 22, 2011
- Two weeks pre-event- Estimated crowd: 3000 – 5000 persons per day (Includes spectators, staff, volunteers, and performers)
- Three days pre-event- Estimated crowd: 10,000 – 20,000 persons per day.



Weather Forecast

- Saturday, May 21st- Sunny, High in the mid 80s
- Sunday, May 22nd- Mostly sunny, High in the mid 80s, Slight chance of morning showers.
- “Airfield Factor”-
When on an airfield, air temperatures will be 10-15 degrees hotter, depending on the surface color.

STIP Tent



STIP Tent Staffing



- Centra Health
- Blue Ridge Medical Reserve Corp

- 4 Physicians (FP, EM)
- 5-7 Registered Nurses
- 1-2 ED Technicians (EMT thru Paramedic)
- 3-4 Support Personnel (HUCs, Scribes, Medical Comms, Ham Operator, Other Non-Medical Personnel)

EMS Staffing

- Campbell County Department of Public Safety
- Lynchburg Fire & EMS Bike Team
- Centra One Air Medical Services
- Approximately 4 Ambulances Stationed throughout the event area
- Two ALS ambulances on stand-by at the STIP Tent
- EMS Walking Teams through the crowd
- Two EMS “Gator” Ambulances, Response ATV

Agencies Involved

- Lynchburg Regional Airport Fire Department
- Lynchburg Regional Airport Police
- Campbell County Public Safety
- Campbell County Rescue Squad
- Lyn-Dan Heights Volunteer Fire Department
- Evington Volunteer Fire Department
- Campbell County Sheriff's Office
- Virginia State Police
- Centra
- Blue Ridge Medical Reserve Corp
- Near Southwest Preparedness Alliance
- Centra One Air Medical
- Lynchburg Area Radio Club



STIP Tent Positioning

VIRGINIA AVIATION FBO
TRANSIT JET RAMP

ELEV
938

TERMIN.

MAIN
RAMP

ARFF Station
& Command
CENTER

Primary Viewing &
Display Area

GENERAL
AVIATION
PARKING

10
CHANGE

TWR
1041

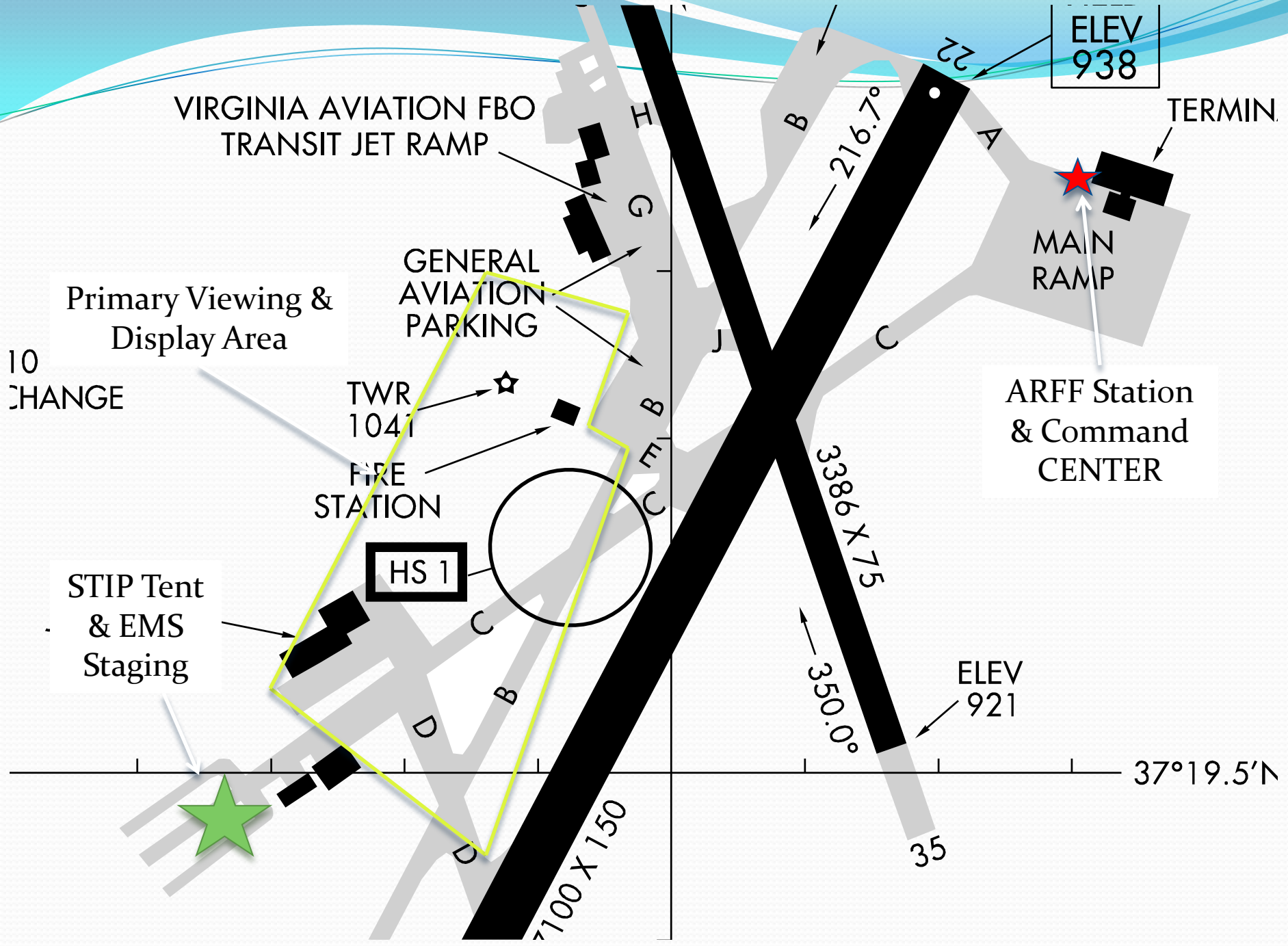
FIRE
STATION

STIP Tent
& EMS
Staging

HS 1

ELEV
921

37°19.5'N



Transportation of Spectators

- Parking at Liberty University and Central VA Community College (Handicap)
- Bus pick-up at parking locations starting at 0830
- 60 buses utilized
- No public parking at airport, except VIP and volunteers
- ONE drop off/pick up point at the airport
- Round-trip – 30-40 minutes

Thursday, May 19th

- Erected STIP Tent
- Set up of basic equipment (Lighting, Beds, Tables, Curtains, Sink, Tables & Chairs, Etc.)
- Generator and water testing

Saturday, May 21st

0800-0900 –

- Complete STIP Tent equipment set-up
- Training for New STIP Personnel and Issuing of STIP I.D.s.
- Meeting of STIP Coordinator with EMS Operations.
- Communication Checks with EMS, Law Enforcement, and Lynchburg General Medical Control via radio and telephone.
- 0900 STIP Tent is operational

Saturday, May 21st

0900-1100

- 0905- First patients arrive. Primary CC: Minor cuts and abrasion, Ankle and knee injuries.
- As morning progress, more heat related illness/injuries.
- Other medical complains, including chest pain, respiratory complains, pregnancy complications.
- IV fluid supplies, Ice, Water supplies getting low

Saturday, May 21st

1100-1330

- Addition supplies requested from Lynchburg General Hospital.
- Supplies picked up by transporting EMS unit and delivered to STIP Tent.
- Patient continue to arrive with heat related injuries.
- Ambient air temperature at 1300- 88 degrees.

Saturday, May 21st

1330-1430

- US Navy Blue Angles Perform
- Patient influx basically STOPS!
- STIP Tent staff regroup, clean, and restock.
- Rotate staff to enjoy the performance

Saturday, May 21st

1430-1900

- Crowds began to gather at the single bus boarding point.
- Spectators are channeled tightly into lines to board the buses.
- Buses are pulling up to be boarded one at a time
- Ambient temperature is now in the upper 80s to low 90s
- Spectators are waiting up to 2-2.5 hours to board buses

- Spectators are running out of water.
- The number of heat related illnesses/injury is expanding exponentially
- Bus boarding point is on the opposite end of the air show area from the STIP Tent
- EMS providers on scene set up a secondary treatment area in the lobby of Virginia Aviation Terminal Lobby
- MCI is declared. Additional EMS support is requested and the LGH-ED notified
- Patients are triaged, directed to areas to cool, treated and released, transported to the STIP Tent, or transported to the Emergency Department

VIRGINIA AVIATION FBO
TRANSIT JET RAMP

Secondary
TX Area

Primary Viewing &
Display Area

10
CHANGE

TWR
1041

FIRE
STATION

STIP Tent
& EMS
Staging

HS 1

ELEV
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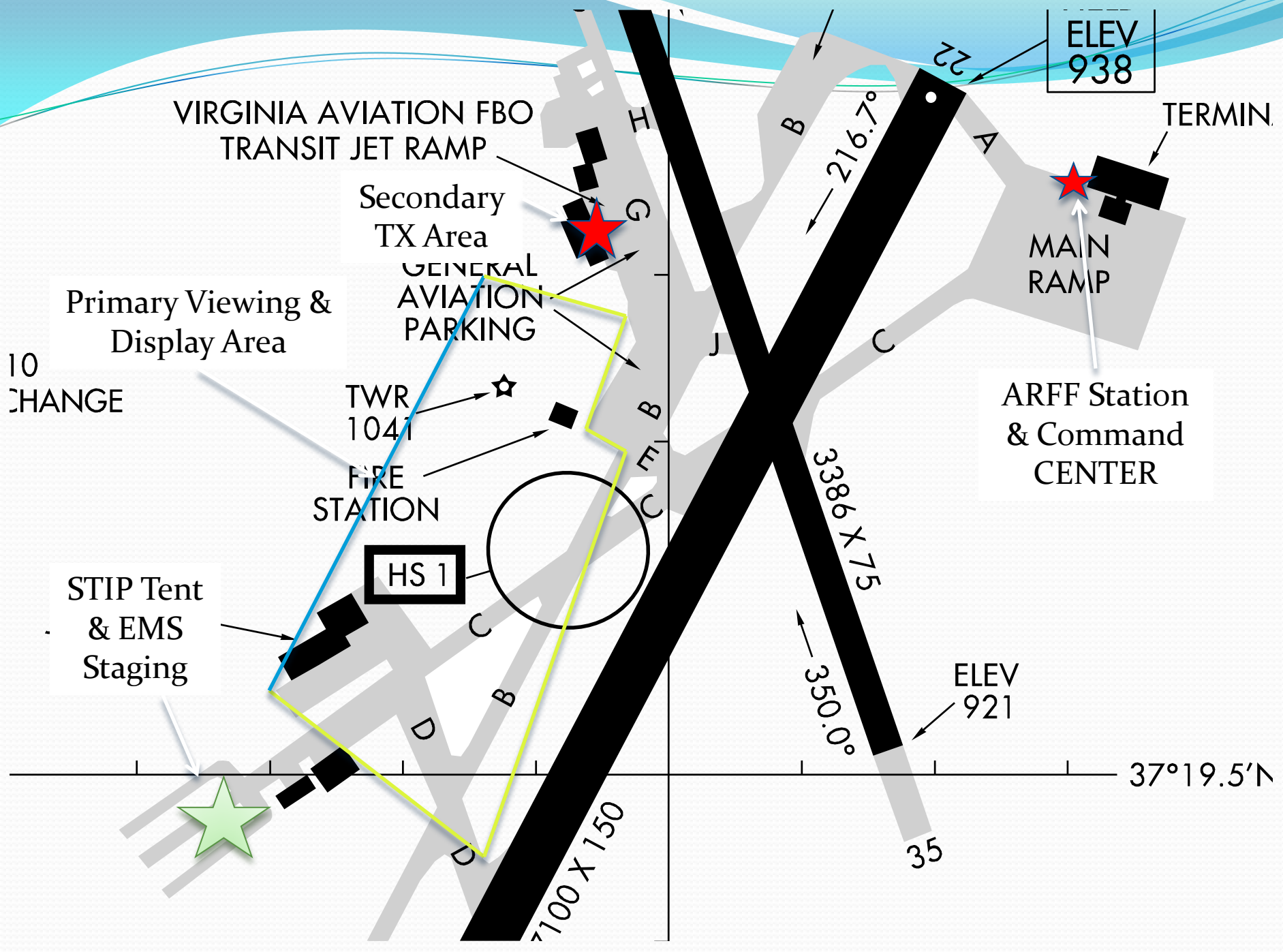
TERMIN.

MAIN
RAMP

ARFF Station
& Command
CENTER

ELEV
921

37°19.5'N



Patient Treatment Included

- Heat Injury/Illness
- Dehydration
- Hypoglycemia
- ACS
- Pediatric Cardiac
- Respiratory Distress
- Labor
- Minor Trauma
- Orthopedic Injuries
- Syncope
- Hypertension
- Eye Injuries
- GI Symptoms

Saturday, May 21st

- Additional mutual aid ambulances arrive – Include units from Campbell Co. (Concord RS, Rustburg RS,), Bedford Co. (Boonsboro RS, Goode RS), Amherst Co. (Monelison RS), Lynchburg City (Lynchburg F&R, Lynchburg Life Saving Crew)
- Fire trucks are moved in and deck guns used to create cooling mist over the crown
- Crown control expanded by law enforcement and bused loaded
- Additional buses are brought in and additional loading areas established
- Crowds thin as loading is better controlled

Saturday, May 21st

1900-2230

- STIP Tent supply request made by phone to LGH and picked up.
- EMS plan made for Sunday, May 22nd
- Meeting between EMS/Fire/Police and air show organizers
- Information disseminated to all agencies

Sunday, May 22nd

0900-1330

- Additional EMS and Police brought in
- Three additional loading/unloading areas are established. Handicap drop-off is closer to seating
- Additional treatment and rehab center set up by Lynchburg Fire & EMS at the old CFR building
- Light rain on and off for approximately an hour before performances start
- Low patient volume into STIP Tent

Sunday, May 22nd

1330-1430

- US Navy Blue Angles perform
- Patient flow stops. No patient arrived at the STIP during the performance

Sunday, May 22nd

1430-1900

- Patients utilize rehab areas for cooling
- Event organizers hand out bottled water to spectators
- STIP Tent receives a smaller number of heat injury patients. Several that are seen and transported have serious underlying medical conditions
- Most patients treated and released

- Spectators are moved out of the airport with minimal difficulty.
- Area was swept by EMS and police for stragglers.
- Airport was secured and breakdown started by staff and volunteers

Challenges for the STIP Tent

- Communications: During the most critical time of the MCI, all cell phone towers were tied up. Unable to communicate to other agencies or hospital by cell phone.
- Ham operators: Excessive radio conversation.
- Cell Tower: Overloaded

Successes

- Cooperation: All agencies worked well together and communicated well.
- Radio Communication: Despite multiple radio frequencies (Lynchburg Regional Airport Fire & Police – UHF, Campbell Co. - VHF-Hi, Lynchburg, Bedford Co., Amherst County – 800 MHz Trunked, Centra – UHF Trunked, LARC – UHF Ham) Radio communication, direct and relay, went well.
- Flexibility: All agencies remained flexible, adapting to the situation changes.

Additional Agencies for Sunday, May 22nd

- Lynchburg Fire & EMS
- Lynchburg Life Saving Crew
- Rustburg Rescue Squad
- Babcock & Wilcox Nuclear Technologies Police Department
- Liberty University Police Department

Total Numbers for the STIP Tent

- Treated & Released Saturday- 29 Patients
- Treated & Transported Saturday- 5 Patients
- Treated & Released Sunday- 20 Patients
- Treated & Transported Sunday- 3 Patients

Trivia: Over 11 cases of IV fluid was used over the two days of the air show.

11 cases = 27.5 Gallons

Total Number of Patients Treated on Saturday

Over 200 Patients
(Estimated by Campbell Co. DPS)

STIP Tent Impact on LGH Emergency Department

- On Saturday, May 21st, LGH-ED saw approximately 300 patients in a 24 hour period
- Over 200 patients diverted from the ED by treatment at the STIP Tent and EMS at the Lynchburg Regional Air Show.

NSPA STIP Tent Thanks To:

- Centra – Emergency Services
- Blue Ridge Medical Reserve Corp
- Centra - Emergency Physicians
- Centra – Lynchburg Family Medicine
- Near Southwest Preparedness Alliance

For More Information

Primal Quest Adventure Race –

www.ecoprimalquest.com

Odyssey Adventure Racing –

www.OAREvents.com

United States Adventure Racing Association -

www.usara.org

Wilderness Medical Society –

www.wms.org

Appalachian Center for Wilderness Medicine –

www.appwildmed.org

National Outdoor Leadership School

www.nols.edu

Photo Credits

- Tim Soyars, RN CEN NREMTP
- DeeDee Soyars, RN MSN
- Will Ramos, Will Ramos Photography
- Primal Quest, LLC
- Odyssey Adventure Racing

Bring a compass, it's awkward when
you have to eat your friends.

