



# State of Colorado Prehospital Whole Blood Program Update

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**Colorado Whole Blood Coalition**

CommonSpirit<sup>®</sup> 



**Our hearts go out to all of  
Central Texas and the Hill  
Country for the lives that  
have been lost and the  
trauma so many families  
are facing**

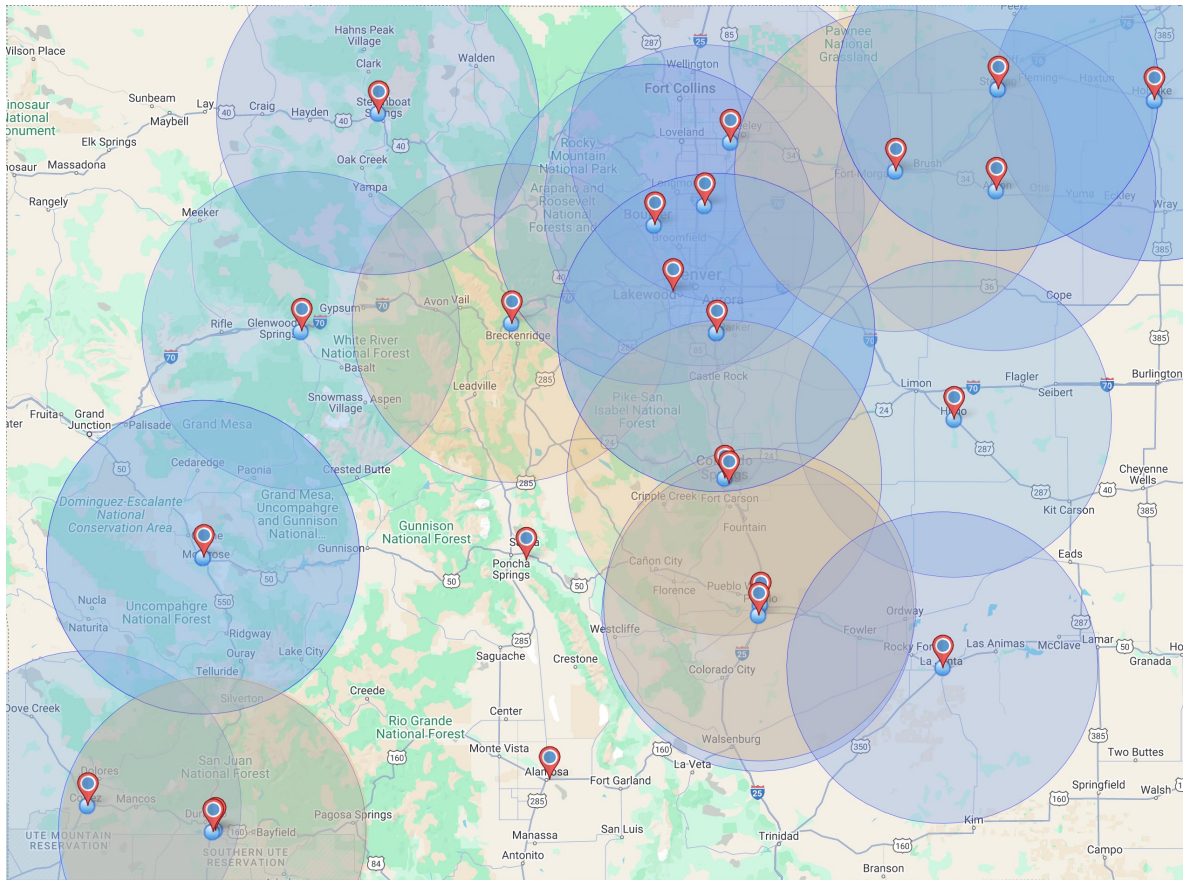


# Colorado Whole Blood Coalition

- **2 years old**
- **250+ members**
  - **EMS**
  - **Health care organizations**
  - **Our blood suppliers**
  - **Truly multi-disciplinary**
  - **Multiple content-area experts**
- **We owe STRAC a huge debt**
- **And, we've been busy**



# Rotor-Wing Aircraft: Colorado



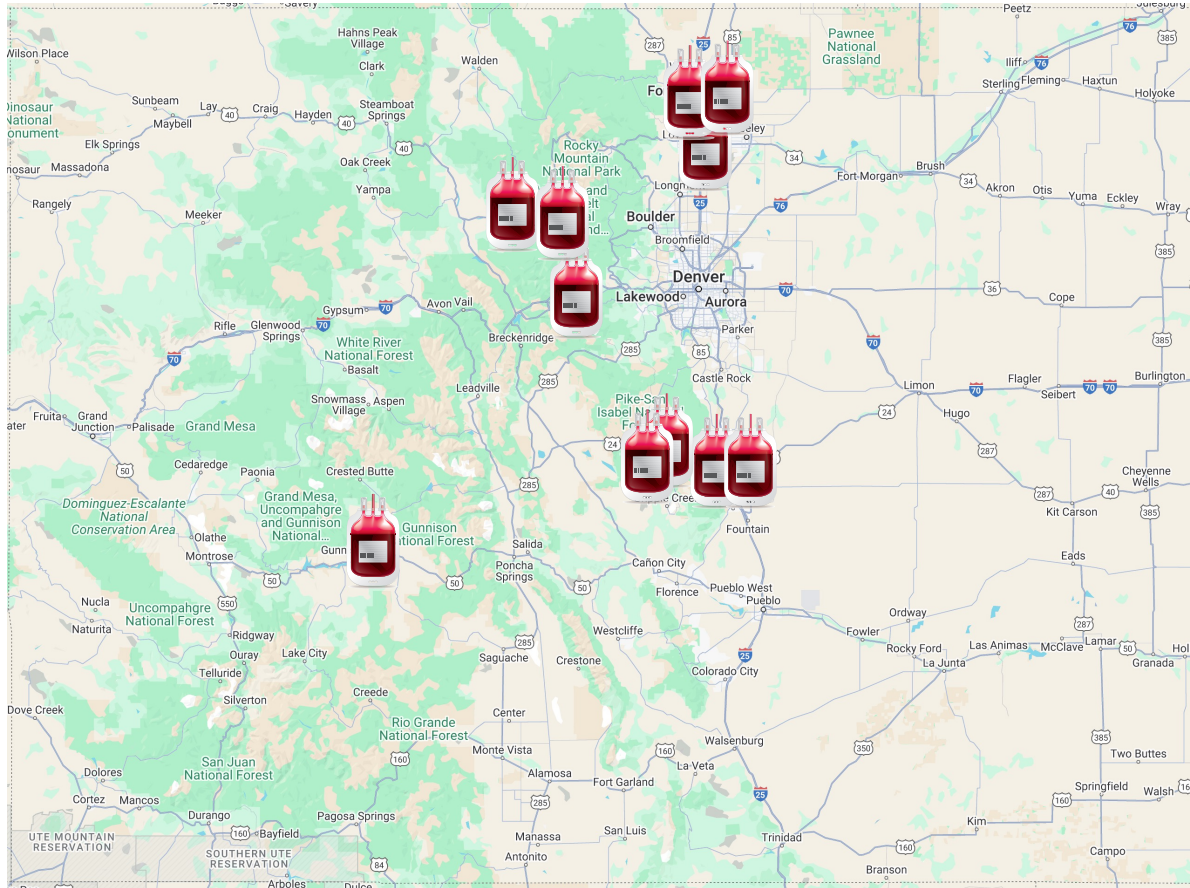
**18/23 of  
aircraft  
carrying  
Whole blood  
+ plasma**

**3 aircraft  
carrying  
PRBC +  
plasma**



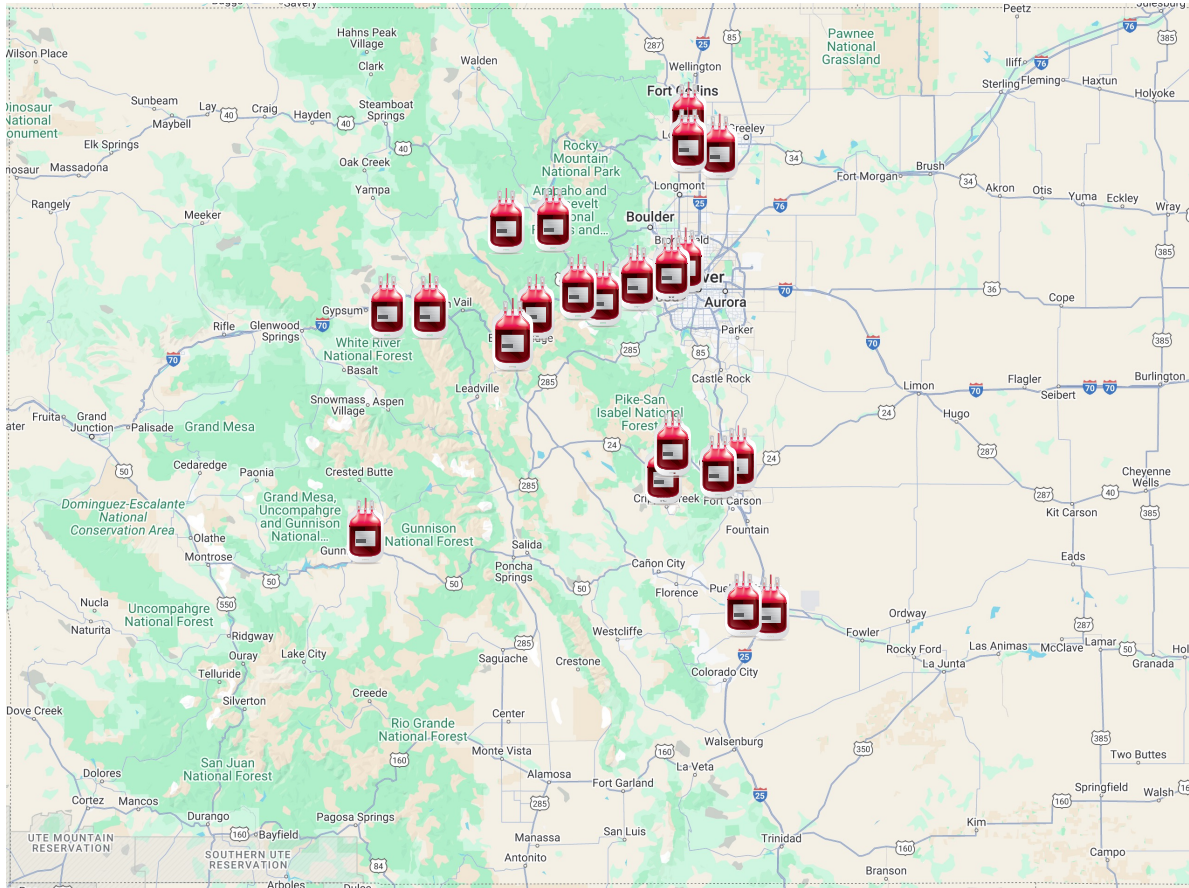


## Colorado: Currently 11 units





# Colorado Oct 2025: 21 units

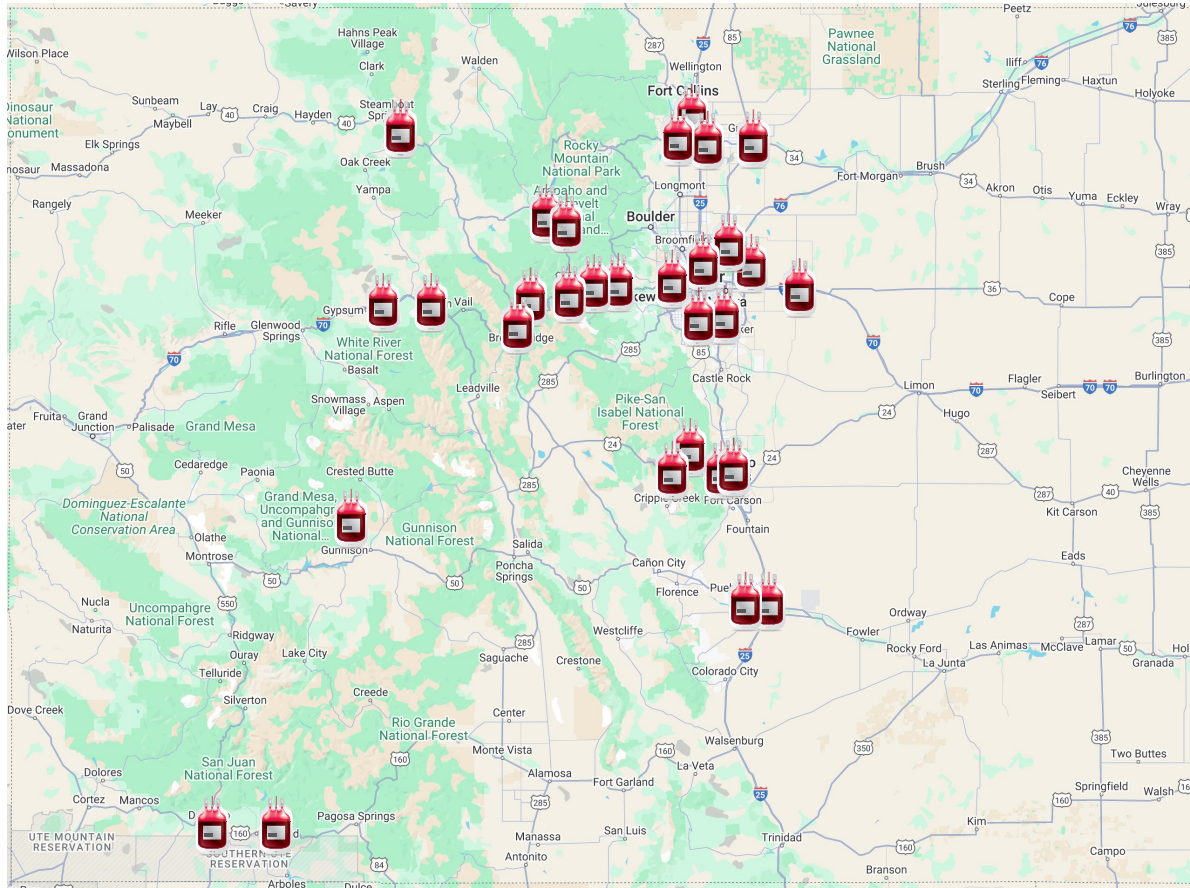


- 12 agencies
- 21 units
- 3 blood suppliers





## “Anticipated” Colorado 2026: 30 units



- 18 agencies
- 30 units
- 3 blood suppliers



# What are our Challenges Going Forward

- **Same as last year**
- **Weather (40%no fly days)**
- **Reimbursement**
- **Transfusion Service**
- **Choice of LTOWB product**
- **Unified data collection**
- **Lack of donor data**
- **Rural implementation**



## Challenge: Unified Data Collection

- **Aligning with NEMESIS and national standards**
- **Aligning with state data requirements**
- **There are tools that will allow us to integrate prehospital data with hospital data**
- **Challenges:**
  - **Data use agreements**
  - **Question of how best to structure our database**
    - **Equity**
    - **Inclusion**



## Challenge: Lack of a “Heroes” Program

- **No data from our largest Blood supplier**
- **Solution:**
  - **Build our own donor identification and donor testing mechanism**
  - **Advantages:**
    - **Allows us to go after a different population of donors**
    - **Facilitates donations and RETENTION**
    - **Sense of community**
    - **Supports MCI, surge, and walking blood banks**
  - **Disadvantages:**
    - **Expensive!**



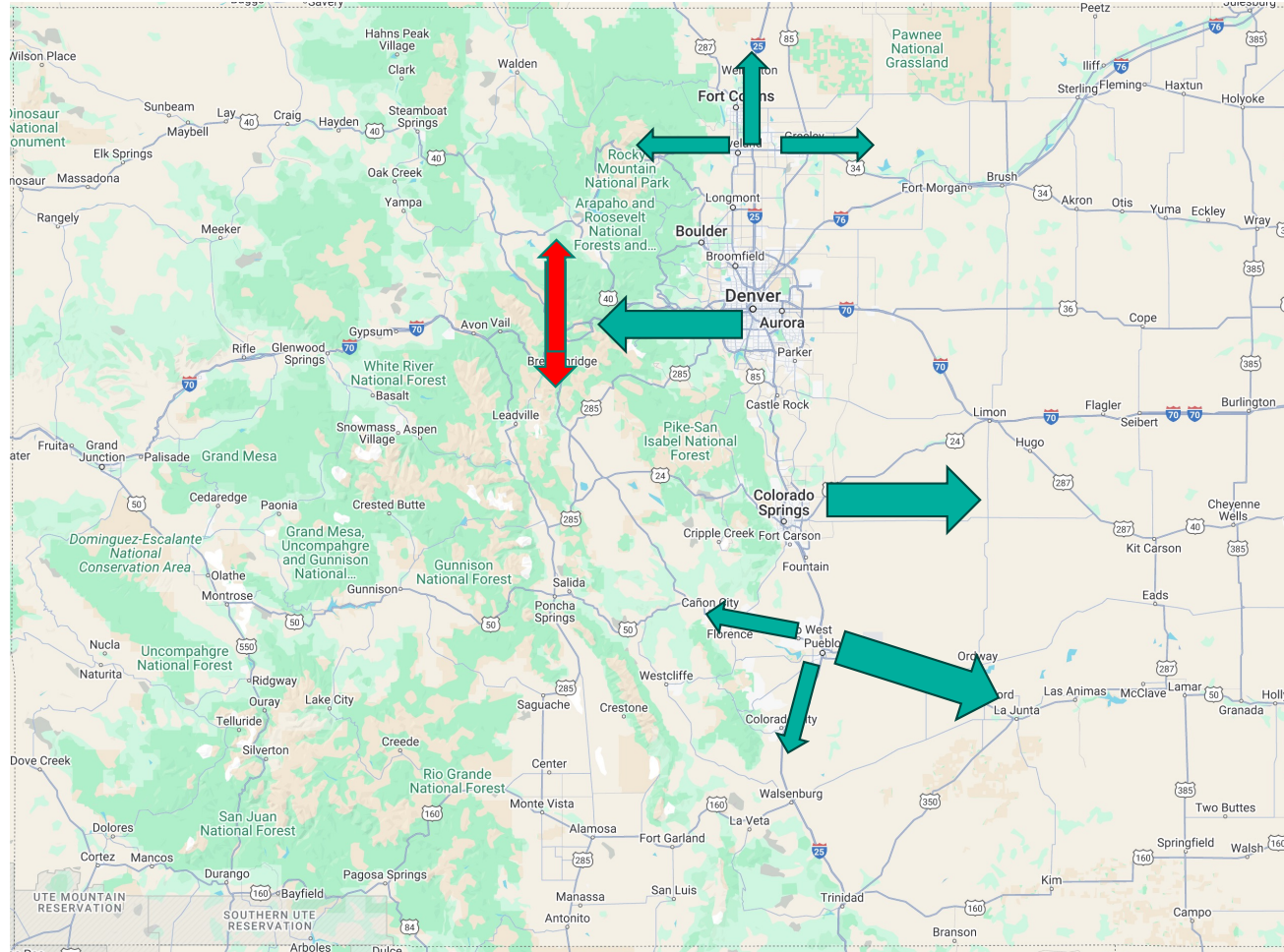
## Challenge: Rural and Frontier Counties

- **Current process:**
  - **Rotor-wing blood delivery**
  - **Mutual Aid**
  - **.....You're on your own.....**





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- 





# Rural Solutions Require Us to Think Outside the Box....

- **Stacy Shackelford**
  - **“Lifesaving interventions delivered too late do not improve survival”**



# Rural/Frontier Solution #1

## Freeze-Dried Plasma

- Has been in use in modern form since 1995
- Up to a 2-year shelf life, maintains good factor activity
- Takes about 10 minutes to reconstitute





# Rural/Frontier Solution #1

## Freeze-Dried Plasma



Module 11: Hemorrhagic Shock Fluid Resuscitation in TFC



### INDICATIONS AND METHODS OF USING **PLASMA**

#### Freeze-dried plasma (FDP)

- Developed in 1930s
- Used in WWII and Korea
- Stopped because of disease transmission
- Continued by other nations
- Rekindled interest by US military due to problems with access to whole blood at battlefield
- Approved for use in hemorrhagic shock in recent years

#### PLASMA

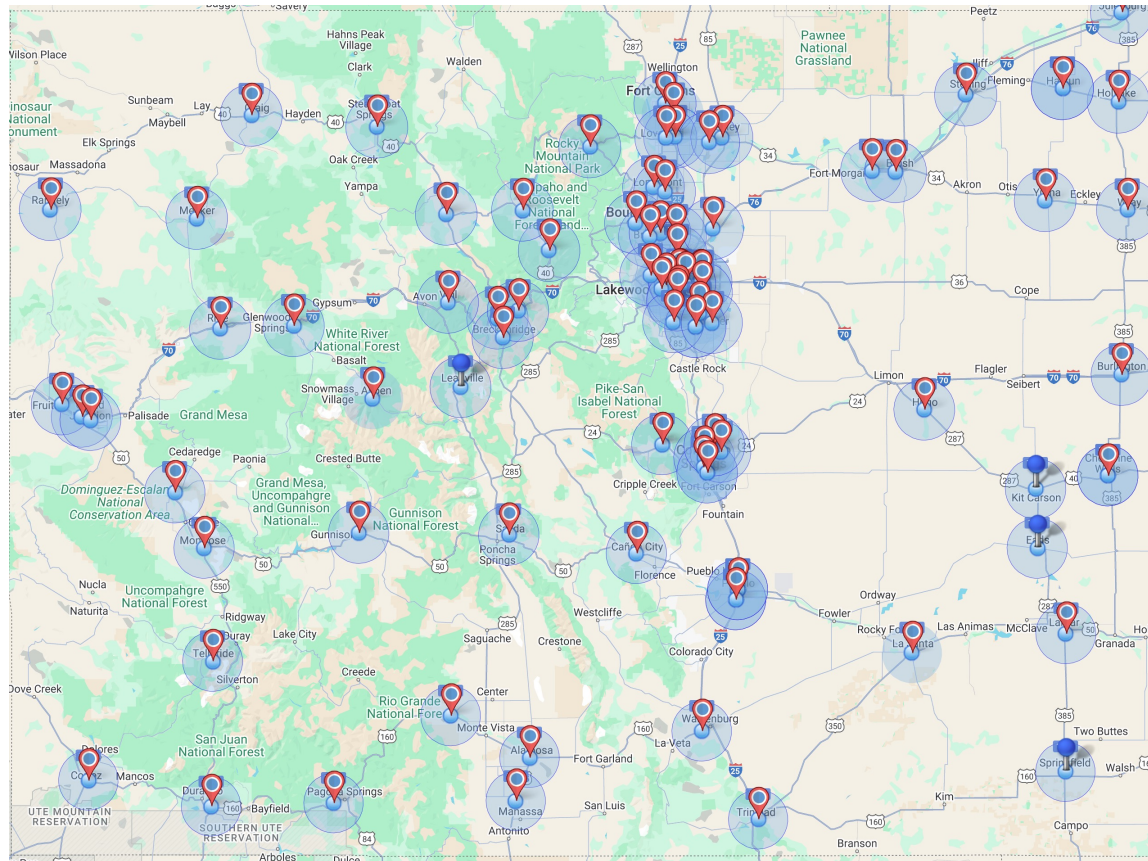
- Provides fibrinogen and hemostatic factors
- Although best with other blood products, can be used alone
- FDP** can be stored without refrigeration
- FDP** reconstituted in vials must be administered through vented tubing, but with collapsible bags standard blood tubing can be used







# Freeze Dried Plasma: Where Would you Use it?



**The blue circles are 10-mile radii around Colorado's trauma centers and critical access facilities.**

**If you are inside of 10 miles you should probably just drive faster.**

**Anywhere else, reconstitute FDP**



# Rural/Frontier Solution #2

## Warm Person-to-Person Transfusion



- **The Vampire Project**
- **Colorado's Blood Waivers allow for person-to-person transfusion**
  - Moving from a waived act to scope of practice later this year
- **This cannot be linked to a blood bank or transfusion service**
  - It is strictly a medical director decision
  - The medical director is responsible for the transfusion
    - Infectious disease follow-up if needed (lookback process)
    - QC/QI



## Rural/Frontier Solution #2 The Vampire Project



- **Given our geography and weather we need more than just cold-stored LTOWB**
- **Screen and fully donor test enough volunteers so that there is a high probability that there is an eligible donor on scene or readily available**
  - Locations integrated into our tracking app
- **If the donor meets donation criteria and passes an infectious disease screening, blood would be donated and transfused to the recipient without additional testing.**





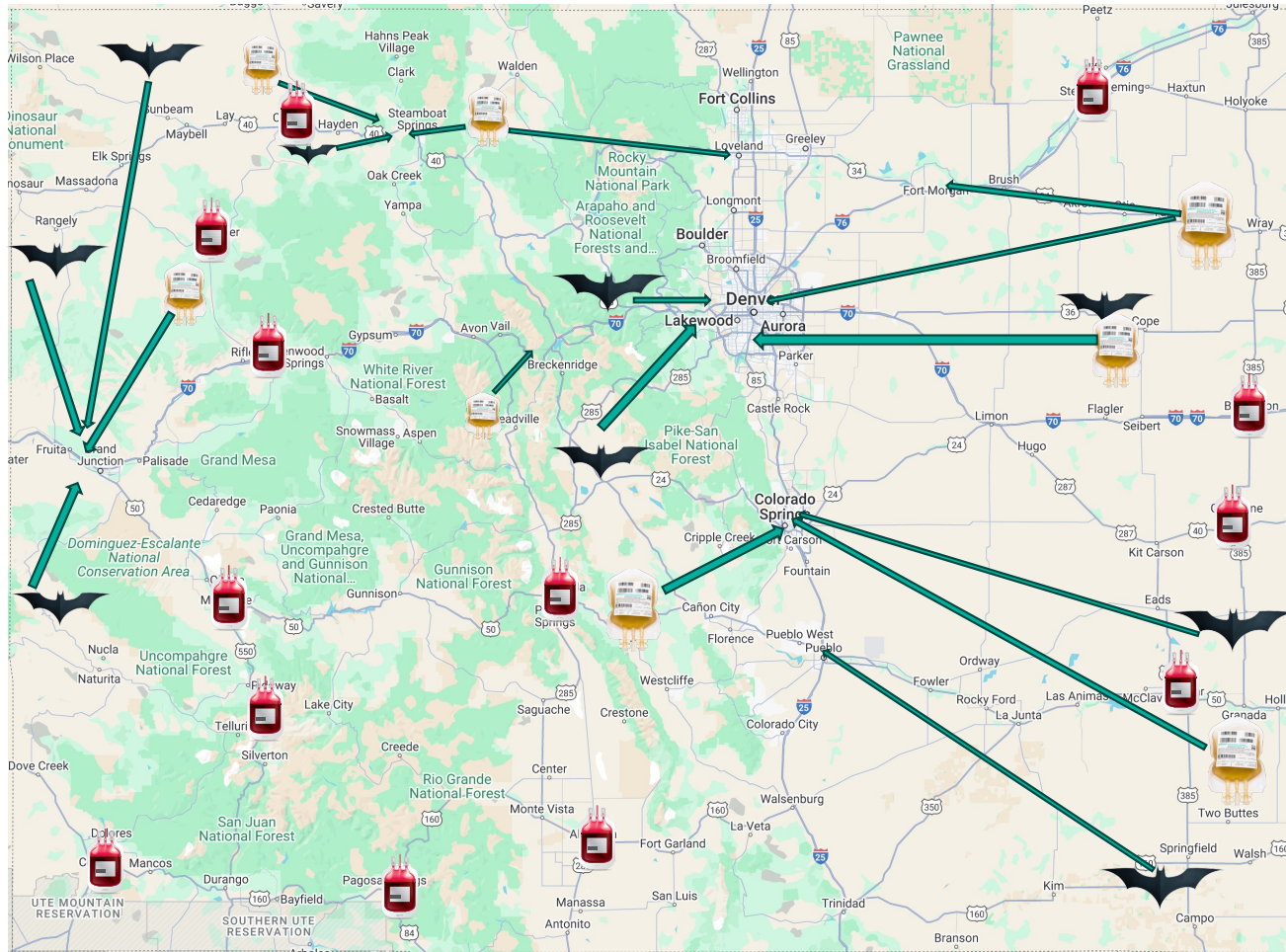
## Rural/Frontier Solution #2 The Vampire Project



- **It's not quite as good as a unit that has been fully tested, but it beats the hell out of salt water.....**
- **75<sup>th</sup> Ranger Regiment ROLO program has safely used this since 2014**
- **Same process could be used for large scale MCI blood donations**
  - **Mobilize pre-tested donors → collect blood and re-test**



# Rural Colorado:



- Cold-stored LTOWB
- Dried Plasma products
- Warm person-to-person Whole blood
- Long Term storage whole blood products



# Thank You!

CommonSpirit 

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