

# Chatham County's Aerial Program



E. Scott Yackel  
Chief Pilot  
Chatham County Mosquito Control



**438 Sq. Miles**

9 DMCA's = 5672 acres

Salt Marsh

Hardwood Swamps

Barrier Islands

"Vintage" Storm Water System

# Integrated Mosquito Management

- Surveillance
- Physical Control
- Biological Control
- Larvicide
- Adulticide



# Surveillance



- Surveillance rather than pretreatments
- Multiple targets, varied Habitats, 12,000 Acres
- Pesticides: Granular materials
- Larviciding Aircraft: MD 500, Air Tractor 402A
- GPS Equipment with data logging



# Source Reduction & Fish Reservoirs





# AIRTRACTOR LARVICIDE





# Larvicide with Source Reduction Ditches



# Granular Aerial Larvicide





# Airtractor Loading





# Helicopter Loading





**Almost Everything we needed to know about WNV.....  
We learned in 2003**

↔  
**Henry Lewandowski  
Robert Moulis  
Chatham County Mosquito Control**





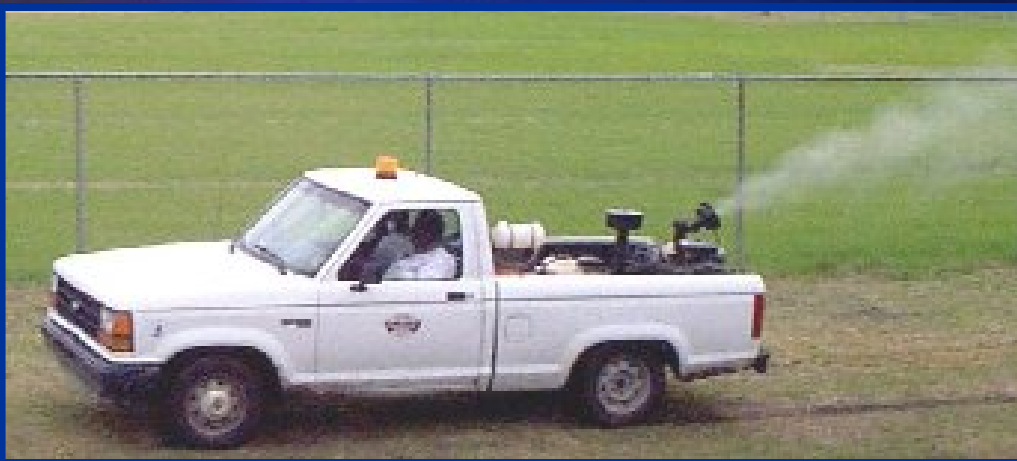
# Was it Time for Change ??



- Timing: When is the Target active and how long?
- Resistance: Is the Target Species resistant to the Active Ingredient?
- Is the product getting to the Target?

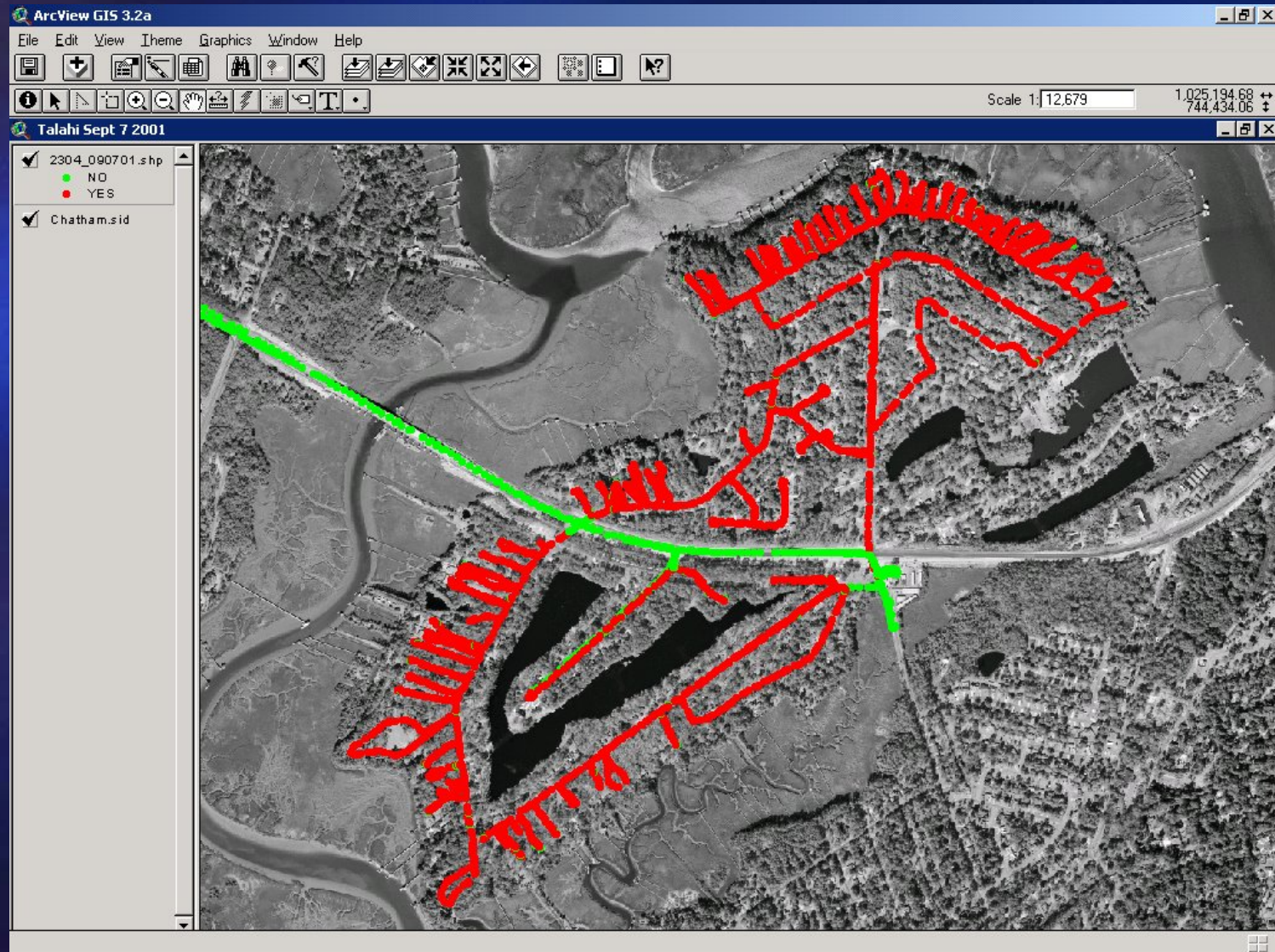


# Truck Challenges



- Swath
- Wind/Drift
- Products
- Efficiency/Timing

# Truck ULV Adulticide





# West Nile virus “Hot Zone”



# West Nile virus Action Plan



- Adulticiding Missions are carried out with aircraft using naled because of our resistance issues with local populations of *Culex quinquefasciatus*.
- Adulticide Missions are timed just prior to sunset to coincide with the beginning of this species activity cycle.



# 3G Adulticide System



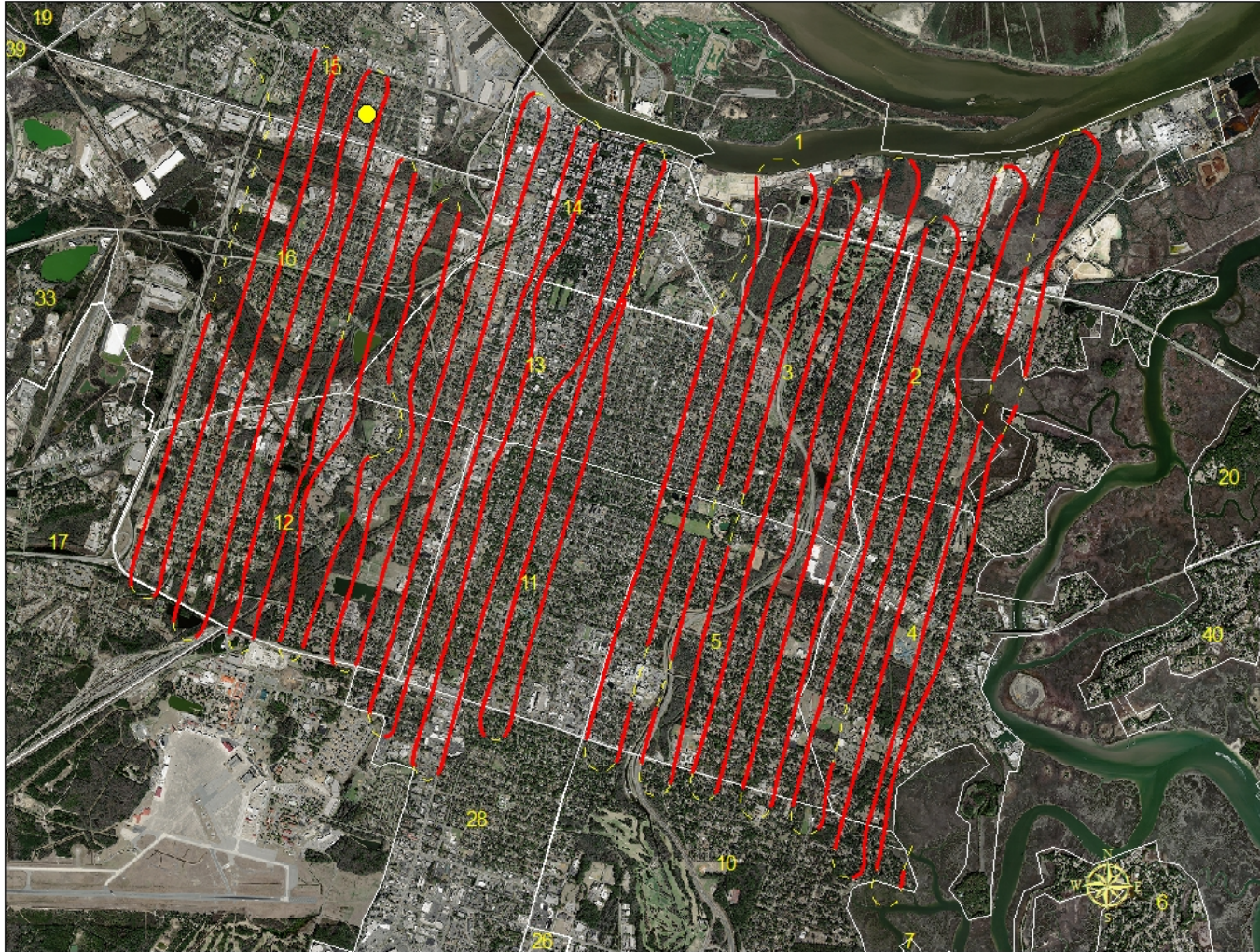


# 3G Adulticide System

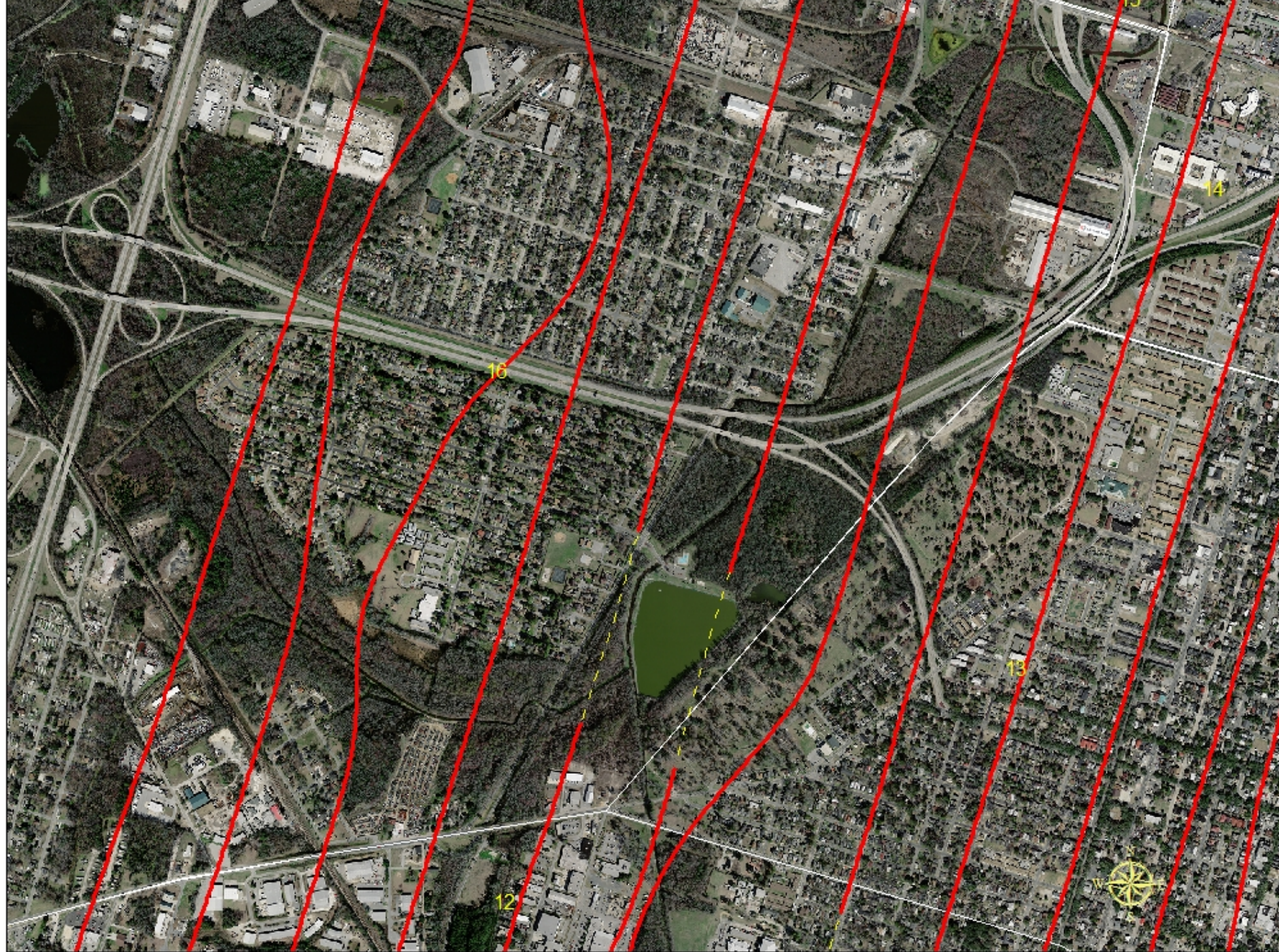




# WNV “Hot Zone” Application











# WNV Surveillance Action Plan

- $\geq 300$  *Culex quinquefasciatus* from any trap site prior to detection of WNV in the county.
- $\geq 200$  *Culex quinquefasciatus* from any trap site after detection of WNV in the county.
- $\geq 100$  *Culex quinquefasciatus* from any trap site where WNV has been detected during the season.

# Aerial Adulticide WNV Action Plan

- Aerial Platform: MD 500E or MD 500N (x2)
- Adulticide: Naled
- Spray System: High Pressure 1000psi
- Nozzles: PJ20
- Application rate: .6 - .8 oz/acre
- Flight Guidance: *Agnav* Guia



# Aerial Adulticide Challenges

- Weather >90 @ Sunset during July and August
- Afternoon / Evening Showers
- Sports Activities late August and September
- Budget
- Bee Hives (>90)

# WNV Community Response

## LETTERS TO THE EDITOR

### West Nile virus takes terrible toll

I walked into my wife's hospital room a few Mondays ago, and she didn't know who she or I were, where she was or why all these people were sticking her with needles.

This was our toughest point in our West Nile saga. No one knew it was West Nile then and wouldn't know for another week.

All I knew was the woman that I've loved for 37 years was in pain and didn't know who she or I was.

Only 1 percent of West Nile bitten people get a severe form of the disease, but you do not want to be in that 1 percent.

A headache beyond what most can conceive lasts, not an hour or two, but days — weeks. The encephalitis can take your hand/eye coordination away, your ability to concentrate, your ability to walk easily — your life.

Spending less than \$10 per person in the county can help prevent this from happening to your loved one. Please support the additional funds for mosquito control — you do not want to be in this position.

STEVE DICKEY  
Savannah

kindness of strangers, who most likely live on Tybee Island and have been through a few tough times themselves.

I would really like to know how Ms. Pearce construed the T-shirt issue with the rest of us HATING the president. Really? I hate the president? That is totally false and irresponsible to say. That statement in itself is worse to me than the T-shirt issue.

Everything I read in her letter was political. I can't believe that she had no political motives on that day. To say that she was just walking down the middle of the street — politically — in her faded T insults anyone who read the letter.

What is unfortunate is that she won't be back to work on something worthwhile. Helping out for a good cause not only benefits the receiver, but also rewards the helper. Her decision, though, is probably best for all. How sad.

TERRY RICHARDSON  
Savannah

#### Youth sports teams trash Daffin

I feel very fortunate to live near

they're "butting in."

Georgia voters may have already approved capital punishment, but all voters from Georgia don't approve of this law. Something being legal does not necessarily mean it's moral, as in Roe v. Wade. Why should it make sense to anyone that we kill people to prove that killing people is wrong?

Being against capital punishment doesn't mean that you approve of what happened to the victim. It only means that you're against the taking of another life.

People have been accused of terrible crimes and later been proven innocent and exonerated. With swift punishment, as Mr. Fogarty proposes, these people would have been executed.

Swift punishment has never been a deterrent and never will, but it will sometimes take the lives of innocent people.

ROXIE BRYANT  
Savannah

#### Attention women: Fly your bras

I am disappointed that our illustrious city leaders are unwilling to support the "Bras



# Aviation Missions

## MOSQUITO CONTROL:

AERIAL INSPECTIONS  
AERIAL LARVICIDE  
AERIAL ADULTICIDE

## LAW ENFORCEMENT:

SAVANNAH/CHATHAM METRO POLICE  
CHATHAM COUNTY SHERIFFS  
COUNTER NARCOTICS TEAM  
GEORGIA STATE PATROL  
US SECRET SERVICE  
US DRUG ENFORCEMENT AGENCY

## SEARCH AND RESCUE:

CEMA  
GSAR  
GEMA  
USCG  
CAP  
Project Lifesaver

## FIRE:

CEMA  
GEORGIA FORESTRY  
MUNICIPAL FIRE DEPARTMENTS

# Search and Rescue



SCMPD-EAGLE

[Gmb] CHATHAM : SAVANNAH  
N/S 120-199 WEST St  
EW 7 - NO 140913267 RICHARDS St  
22:00:54

Tue Nov 27 22:02:19 2007

FLIR  
SYSTEMS



RATE





# Surveillance Equipment

Night Sun

FLIR

Day & IR Camera

Aerocomputers

GPS Sys.

NVG's

Night Vision Goggles

Project Lifesaver Receiver

800 mhz "Regional Radio"

Video Downlink





# FLIR Image





# PROJECT LIFESAVER



# GSAR Water Rescue





# Short Haul Missions



# Aerial Re-Supply Missions







**Aerial Firefighting**

# Aerial Firefighting





# Savannah Sugar Refinery



# Little Tybee





Thank You,  
FLY SAFE



*Questions ??*