



# Wildfire 2019 BRASIL

7ª CONFERÊNCIA INTERNACIONAL SOBRE INCÊNDIOS FLORESTAIS  
CAMPO GRANDE - MATO GROSSO DO SUL

## FOREST FIRE PROTECTION PLAN

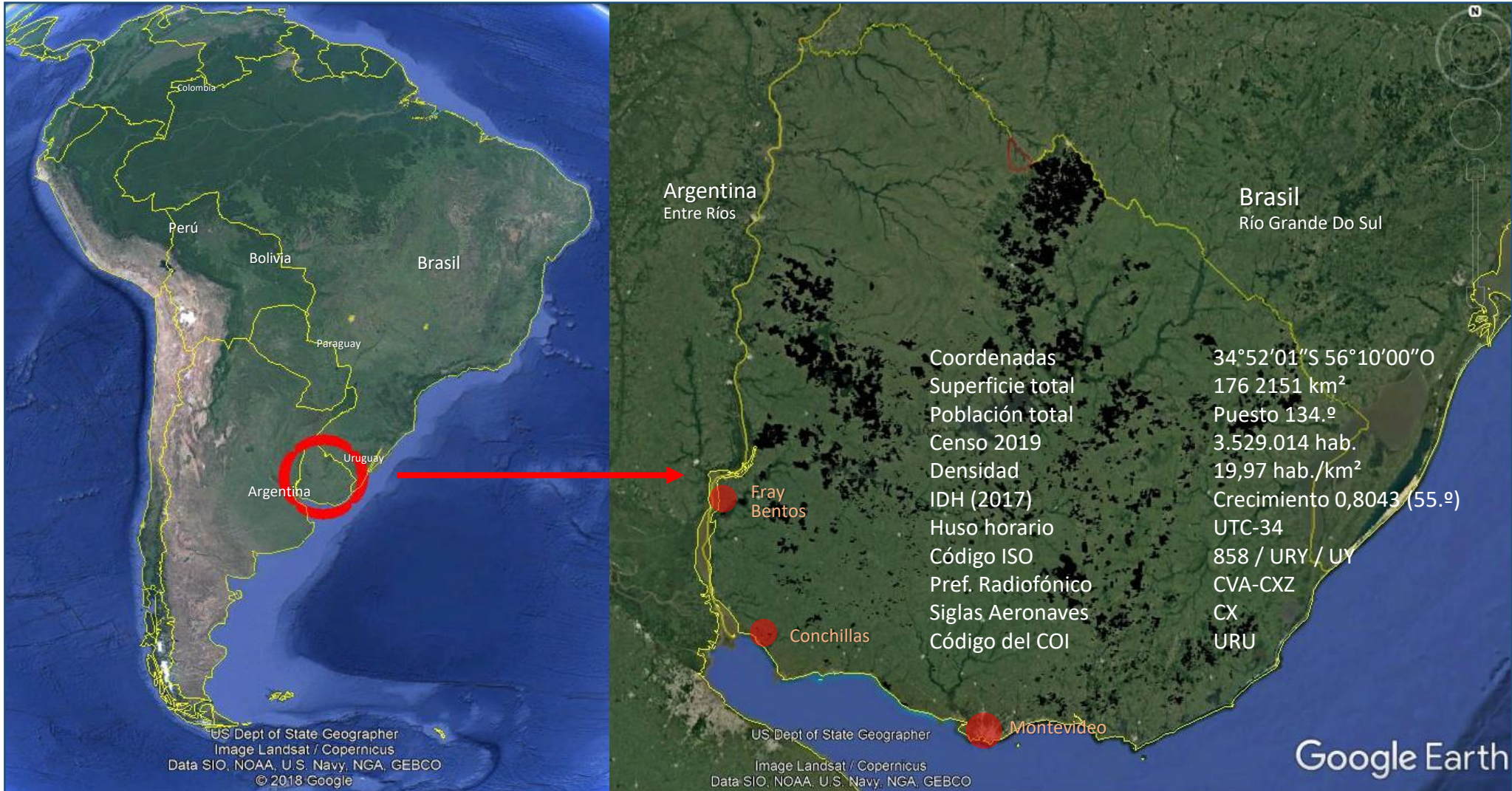


Sociedad de  
Productores  
Forestales  
del Uruguay





# URUGUAY



■ Commercial Plantations



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# URUGUAY

- 3.5 million inhabitants (20 per km<sup>2</sup> - 95% in cities)
- Temperate Climate - Rain: 1,200 mm/year, distrib. uniform)
- 17.5 million hectares. Gently undulating territory (maximum height: 513m SNM)
- Predominant vegetation: Grasslands
- Agricultural and Forestry Production (recent)
- Forests planted with Eucalyptus and Pine Trees (Export Destination)
- *2 (+1) Cellulose Plants*
- *Board Plants*
- *Chipping (Pulp Chips)*
- *Impregnated*
- *Sawmills*
- *Energy*

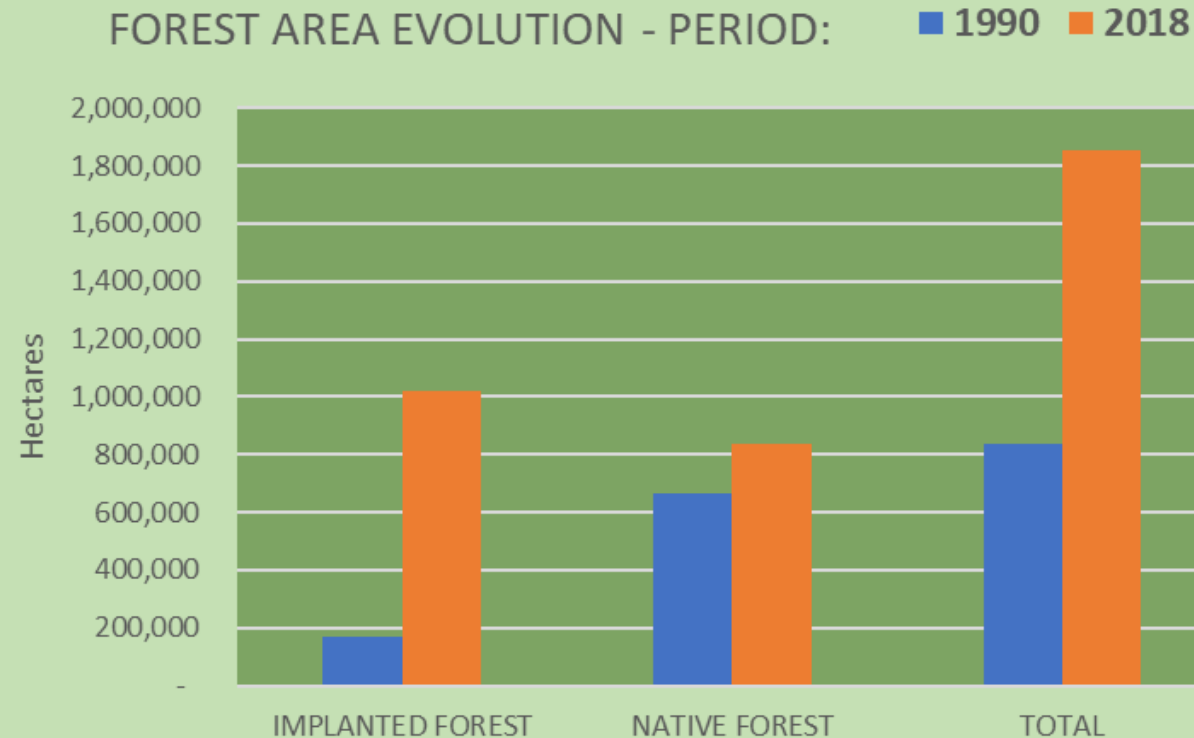




# 1987 – LAW "FORESTAL"

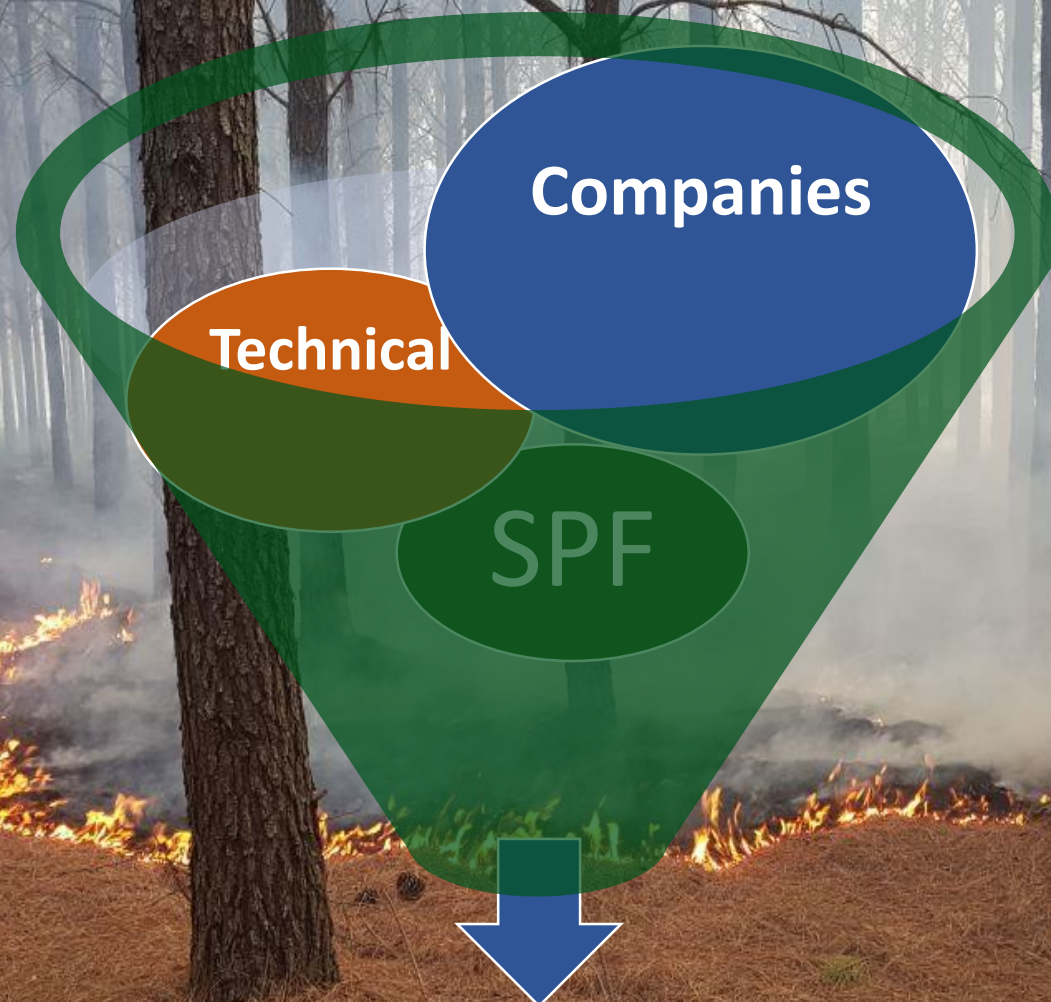


- Promotes FORESTRY in FOREST FITNESS SOILS and LESS APTITUDE FOR OTHER USES.
- Protects the NATIVE FOREST.
- In conjunction with other laws, it prioritizes the care of the environment, good forestry practices, and the safety of people and goods.



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# FOREST FIRE PROTECTION PLAN





**IMPLEMENTED AND FINANCED BY  
MORE THAN 100 PRIVATE  
COMPANIES, WITH THE  
COORDINATION OF THE  
ASSOCIATION OF FOREST OWNERS  
(SPF)**





# STATE RECOGNITION

NATIONAL EMERGENCY SYSTEM



NATIONAL DIRECTION OF FIREFIGHTERS



STATE FLIGHT CONTROL



Dirección Nacional de Aviación Civil  
e Infraestructura Aeronáutica

República Oriental del Uruguay

GENERAL FOREST MANAGMENT



DGF

Dirección General  
FORESTAL



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# **GENERAL OBJECTIVE:**

PROTECTING FOREST HERITAGE

# **SPECIFIC OBJECTIVES:**

Optimize and integrate resources

Improving responsiveness

Sharing and lowering protection costs



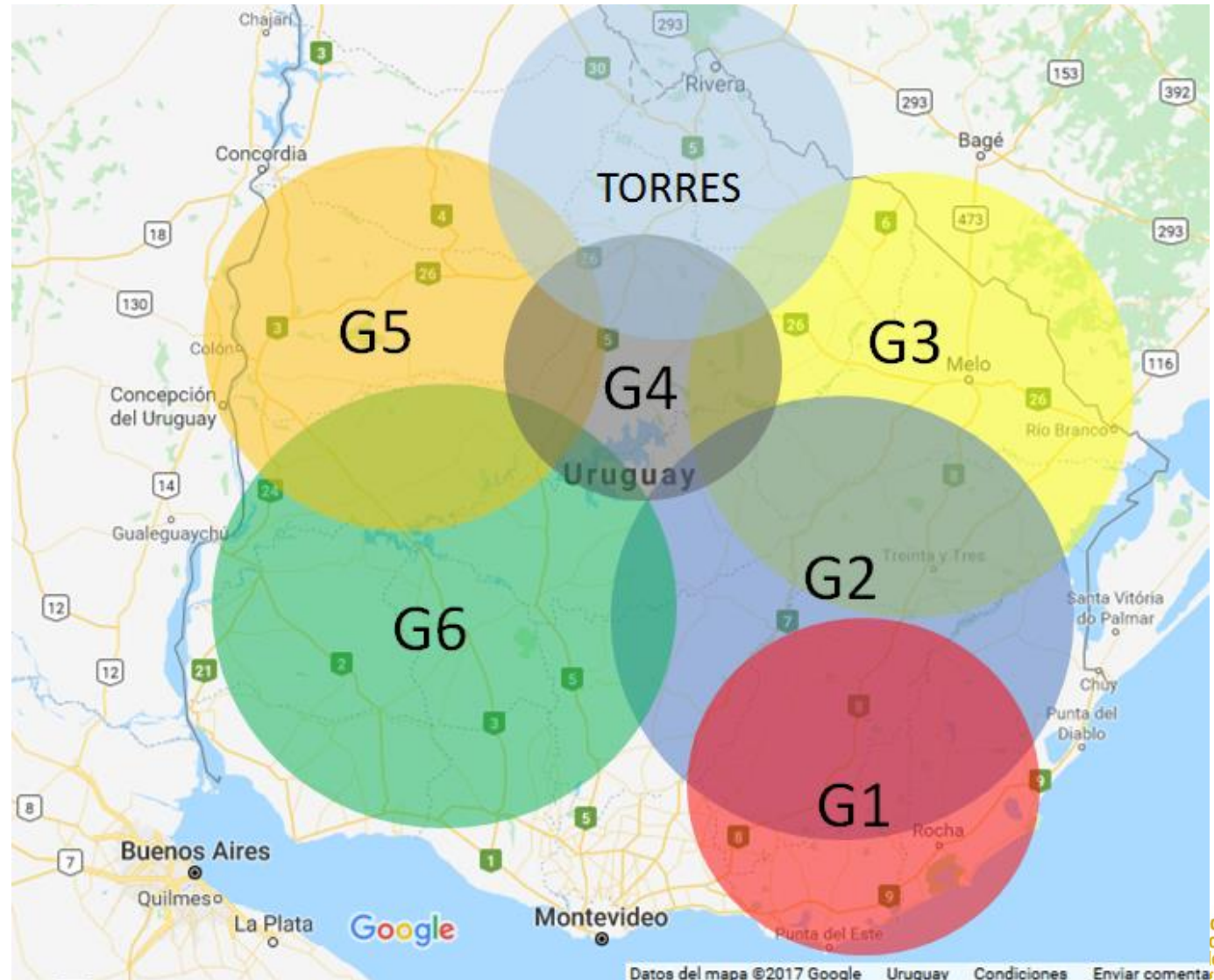
# GEOGRAPHIC REACH AND DISTRIBUTION



**PERIOD:** Summer - 15/12 to 31/03

**DETECTION:** 6 aircraft and 15 towers

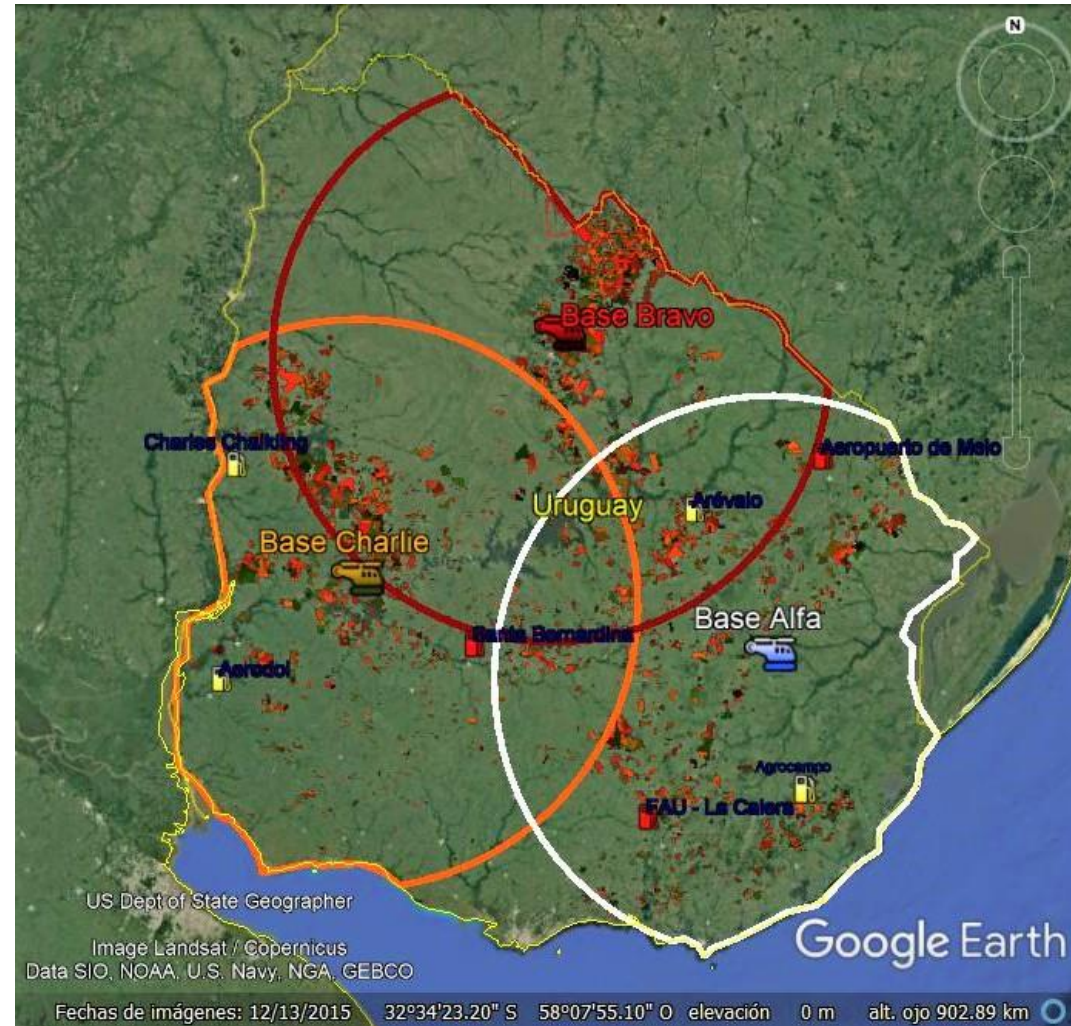
**PROTECTION:** 800,000 hectares of effective forest (80% of planted forests)



# COMBAT COVERAGE



**16 out of 19 Departments**  
**80% of the forests planted**  
**3 Operational Bases:**  
    Alpha (East - Southeast)  
    Bravo (North)  
    Charlie (West - Southwest)  
**3 Central (Coordination and Dispatch)**  
**3 Helicopters (Combat)**  
**21 Brigadier Firefighters (Combat)**





# ACTIONS



## PREVENTION

Preventive forestry, Training, Simulations, Communication Campaigns

## DETECTION

Airplanes and Watchtowers,  
Industry and Community Workers



## DEPLOYMENT, COORDINATION AND DISPATCH

Operational Bases / Heliportable Brigades (BRIF's)

## COMBAT

Helicopters with BRIF's and Companies' Resources



# MANAGEMENT BASED ON:

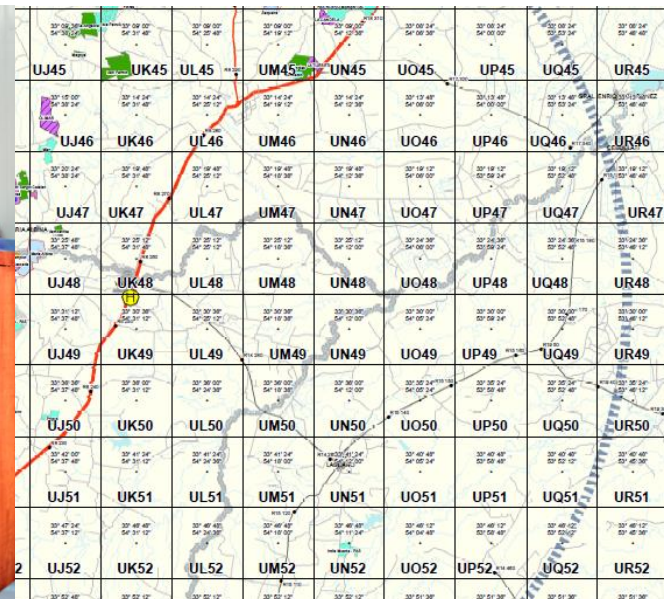


- Manuals of Procedures
- Software
- Redundant communication systems
- Georeferenced maps
- Fire Risk Index Calculation (IRIF)
- Real-time satellite tracking
- Companies resources for expanded combat
- State resources if necessary
- Evaluation and upgrade (continuous improvement)





# SYSTEM RESOURCES



# RESULTS



- Reduction of burned area (less than 20 hectares affected last summer)
- Collaboration among companies
  - Knowledge integration
  - Sharing resources and with external funding
  - Reducing risk
- Complementary work with the state, managing 1,100 foci per season
- Risk management (most fires originate from outside forests)
- Decision support (early and accurate detection)
- Safe work



## IN SHORT:

A SYSTEM SELF-MANAGED BY THE PRIVATE SECTOR, ADAPTED TO ITS NEEDS AND AT A REASONABLE COST, WHICH IS DISTRIBUTED IN PROPORTION TO THE AREA OF EACH COMPANY



# THE FORESTS ARE LIFE AND WORK, LET'S HELP TAKE CARE OF THEM.



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