

Fire-Rescue Department  
Item-1: Bell 412EPX  
Fire/Rescue Helicopter  
Purchase

January 17, 2024

# Air Operations

## Section History

- 1997 - Program development began
- 1999/2000 - First helicopter donated for 60-days as proof-of concept program
  - Bell 407 “light-lift” helicopter
- 2002 – Corporate Partnership funded 90-day contract for services program
  - Bell 212HP “medium-lift” helicopter
- 2003 – Corporate Partnership funded 120-day contract program
  - Bell 212HP helicopter & included air rescue & EMS capabilities



# Air Operations

## Section History

- 2004 – Aircraft fleet consultant Conklin & de Decker hired to conduct program analysis
  - Cedar Fire AAR – The City needs its own helicopters
  - Report identifies owned/operated as more cost-effective than contracting for service
- 2004 – Mayor & City Council direct SDFD to purchase first fire/rescue/EMS helicopter capable of night fire & rescue operations
  - Program became year-round, and SDFD operated City & County funded contract helicopters until SDFD and Sheriff helicopters were delivered
- 2005 – Copter 1 is delivered to City, and the contract program is discontinued



# Air Operations

## Section History

- 2008 – Witch/Guejito Fire After-Action-Report identifies the need for a second fire/rescue/EMS helicopter
  - Two helicopters are required to ensure one is always available
  - Copter 1 was the only helicopter fighting fire day and night in the City for the first three days of the fire
- 2008 – Copter 2 is delivered and placed into service
- 2014 – Bernardo Fire After-Action-Report identifies a requirement for three helicopters to ensure two helicopters are always available during the fire season
- 2018 – Copter 3 is delivered and placed into service
- 2023 – Copter 1 decommissioned – 43 Years old



# Air Operations

## Copter 2

- Bell 412EP Twin-Engine Helicopter
- Twin-Engine for one-engine-inoperative performance – SAFETY
- Purchased by City in 2008
- Manufactured in 2008
  - Sixteen (16) years old
- Capable of seating Pilot + 9
- 375-gallon water drop capacity
- Rescue hoist & EMS equipped
- Modern cockpit & systems



# Air Operations

## Copter 3

- Sikorsky S70i FIREHAWK
- Twin-Engine for one-engine-inoperative performance – SAFETY
- Night Hover-Fill
- Capable of seating Pilot + 10
- 1,000-gallon water drop capacity
- Rescue hoist & ALS equipped



# Air Operations

## Current Situation

- Climate change causing year-round fire season
- Fires are spreading more rapidly and larger loss of life and structures than ever before
- Helicopters capable of increased water delivery is critical
- More water delivered = increases odds of extinguishing fires quickly
- Helicopters are maintenance intensive
  - Three helicopters are needed to have two available during fire season



# Air Operations

## New Bell 412EPX – Copter 4

- Bell 412EPX Twin-Engine Helicopter
- Twin-Engine for one-engine-inoperative performance – SAFETY
- Latest Generation – Modern Technology
- 4-Axis Autopilot with Hover Hold
- Increased Gross Weight – 12,200 Lbs.
- 11% Additional Power – Upgraded Gearboxes and Components
- Capable of seating Pilot + 9
- 375-gallon water drop capacity
- Rescue hoist & EMS equipped





## Performance Comparison

Bell 412	EP - Copter 2	EPX - New Copter 4
Configured Weight	7,914	7,947
Maximum Gross Weight	11,900	12,200
MGW - Water Dropping	11,900	13,000
Takeoff Ship Horsepower	1,370	1,520
Maximum External Load	4,500	5,000

# Bell 412EPX Purchase

- Execute agreement with Bell Textron, Inc. for purchase of one (1) Bell 412EPX helicopter and Hangar One Avionics for mission equipment (radios and firefighting tank)
- Initial deposit payment for the acquisition will be advanced from the General Fund in FY 2024
- Equipment Vehicle Financing Program (EVFP)
  - Will reimburse General Fund for advance payment
  - Finance total cost over a 10-year term

# Bell 412EPX Purchase

**Questions ?**