

March 1, 2010

Exam, sky watch back Wednesday.

Astronomy in the News?

Pic of the Day - Dark streaks on Mars.  
Mars is easy to see in the evening sky.



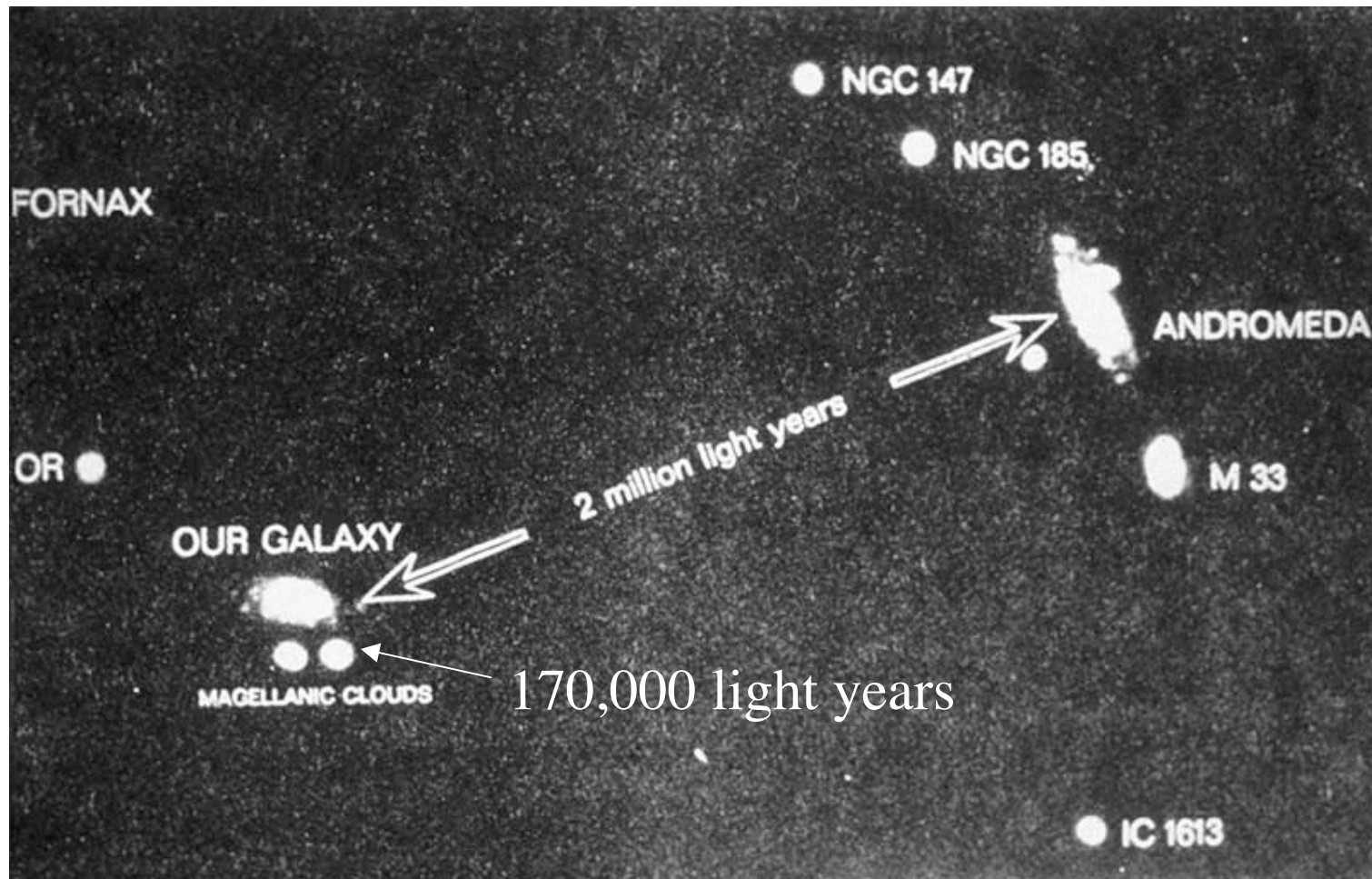
# Kepler

SN 1987A  
first naked eye  
supernova since  
Kepler's in  
1604  
Happy  
Birthday!



Tycho

# Local group



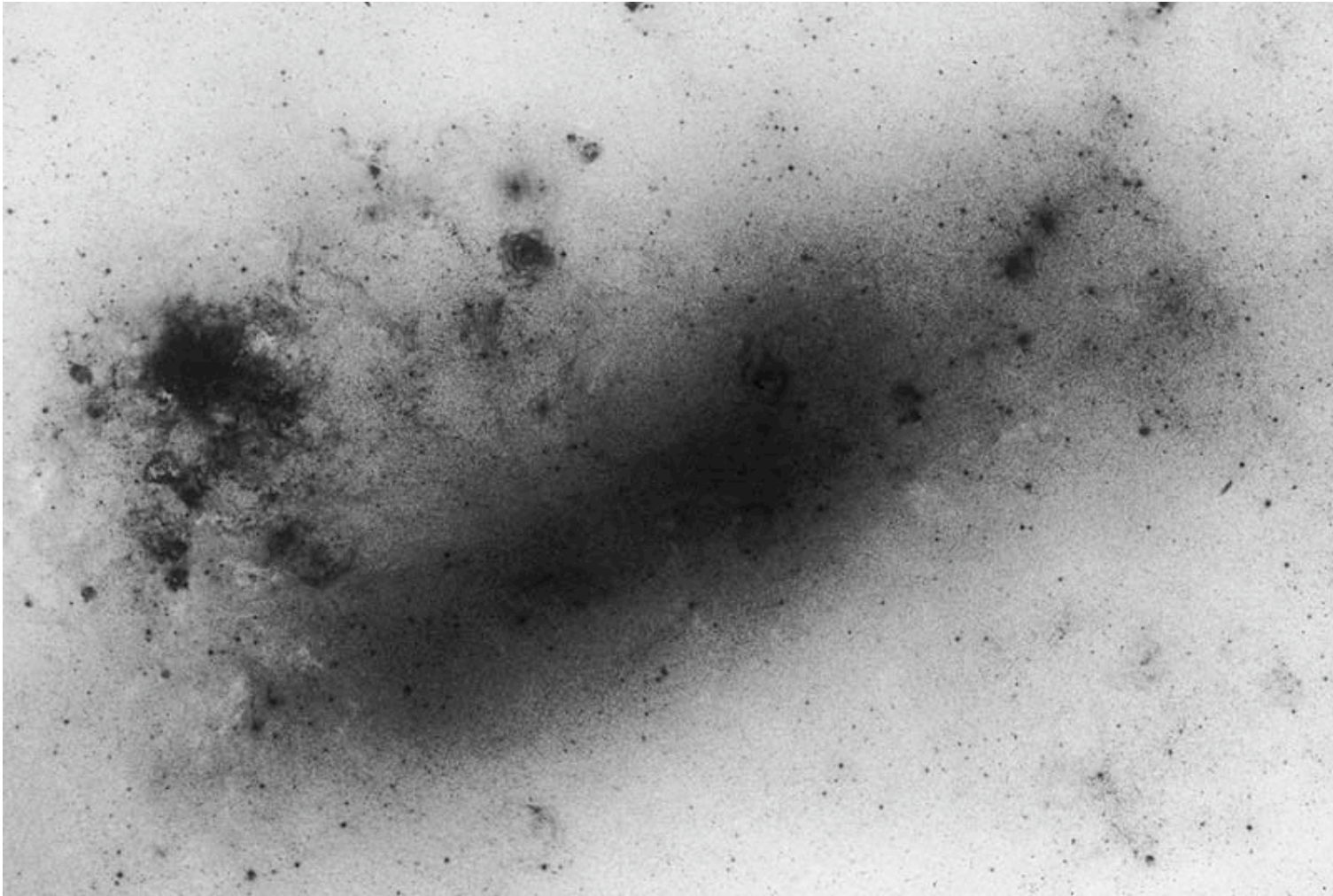
# Large Magellanic Cloud, irregular galaxy (color)



# Large Magellanic Cloud, larger scale



LMC negative



Rob McNaught patrol photos - the day before



2-22-87

The first known photo of SN 1987A hours after shock breakout



*2-23-87*



One day later



2-24-87

Near maximum light



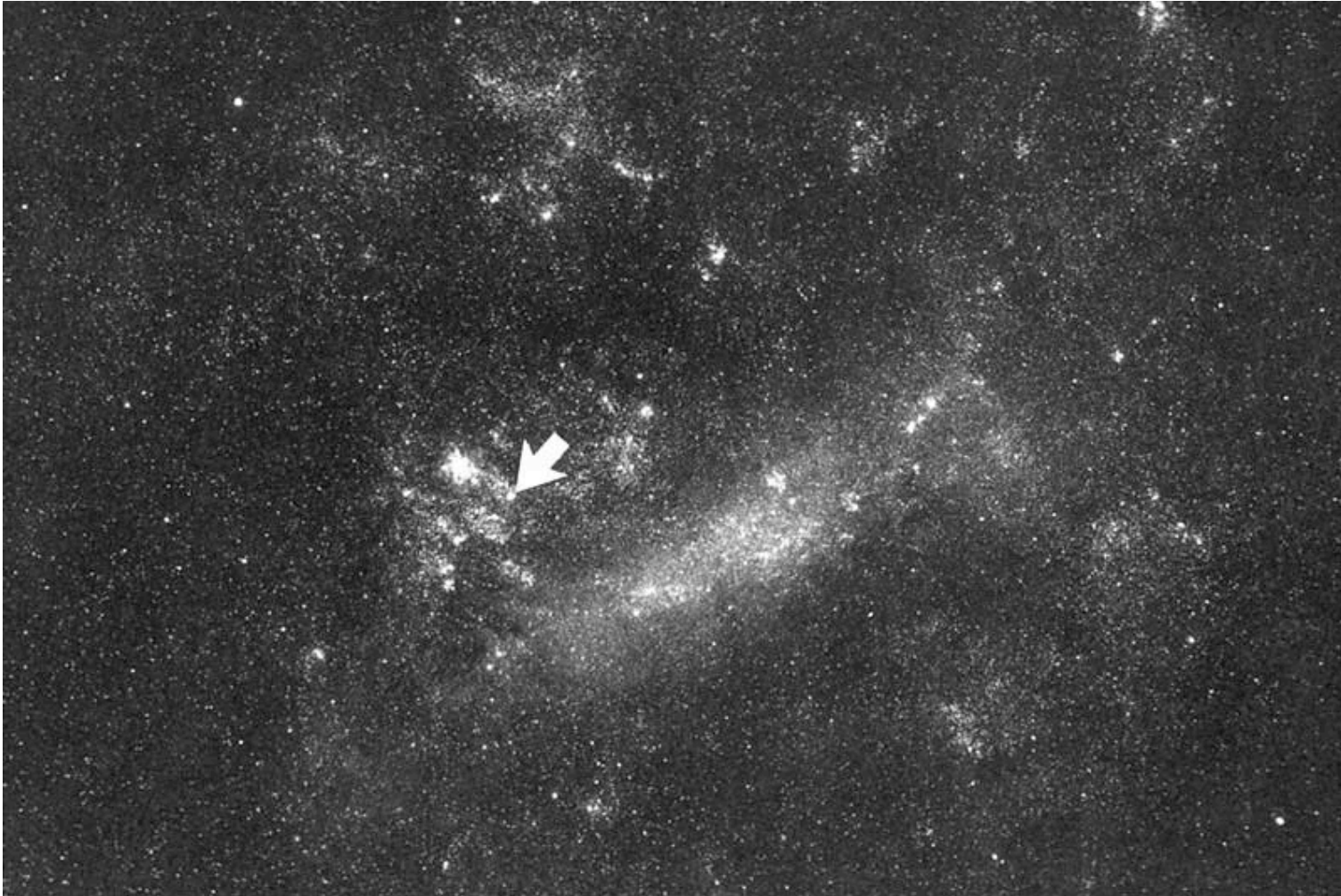
5-20-87

About when I saw it



8-23-87

# LMC w/arrow



## One Minute Exam

When SN 1987A exploded, where would have been a good place to have seen it with your naked eye?

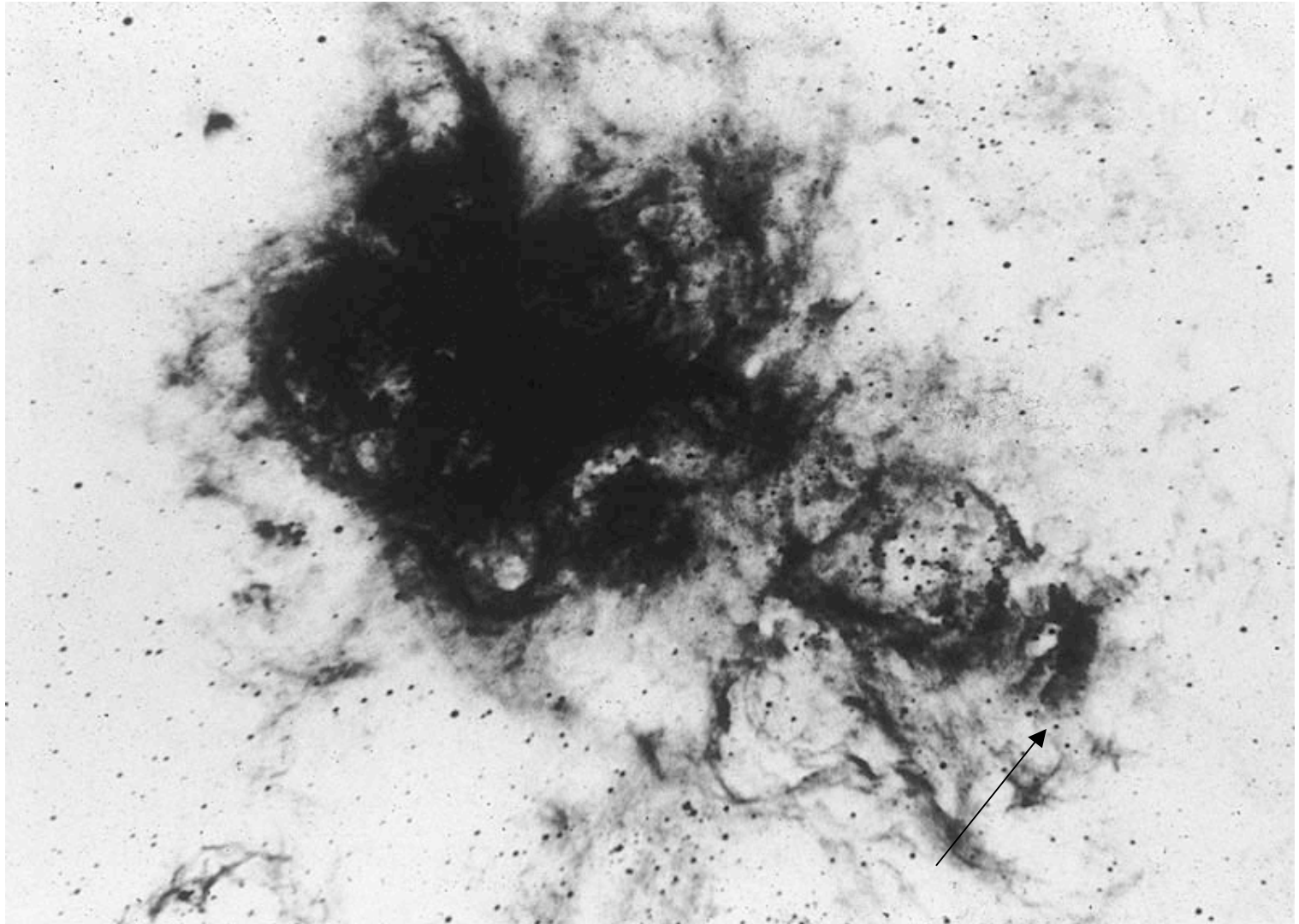
 Texas

 Japan

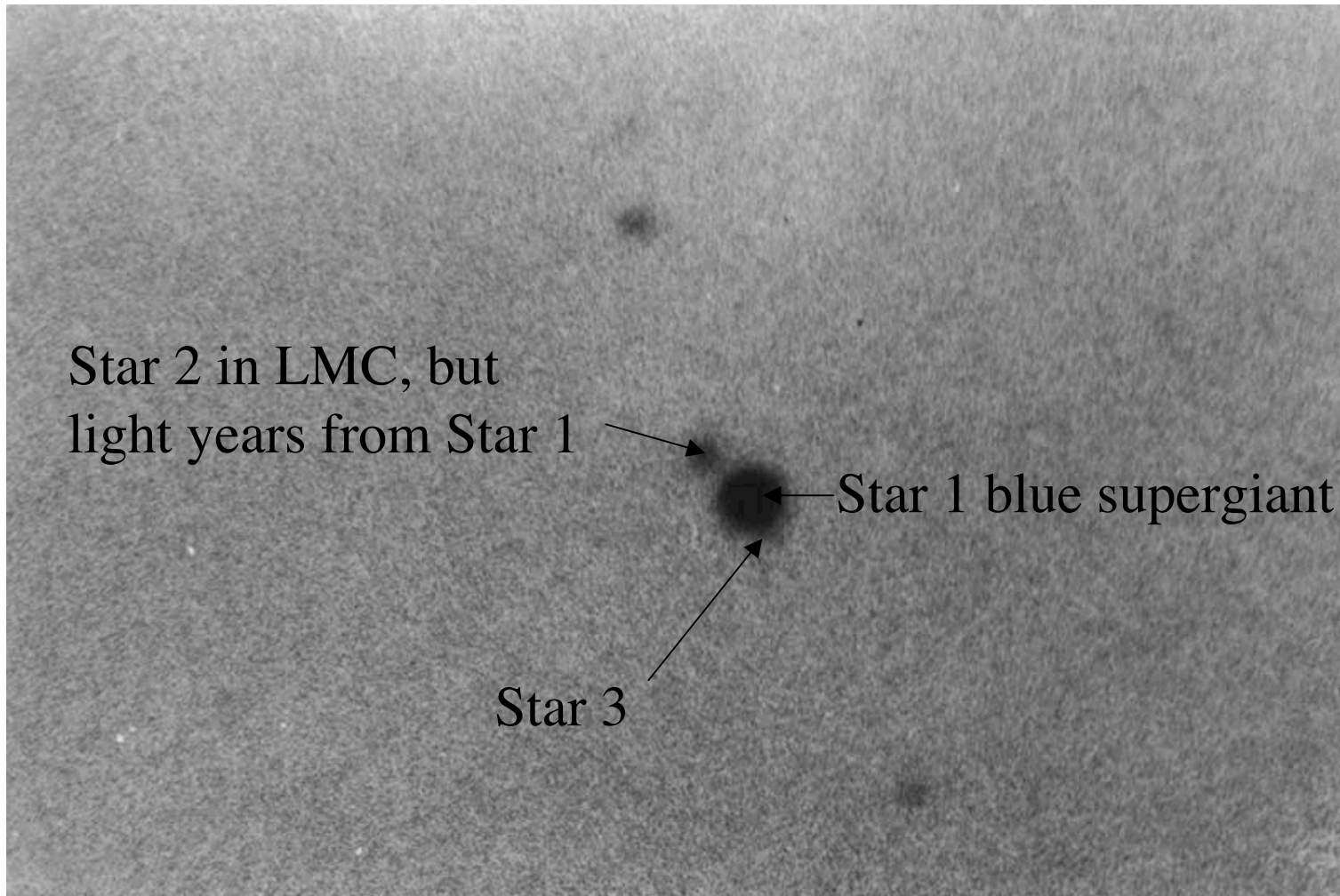
 Russia

 Argentina

Photo of progenitor star (giraffe)

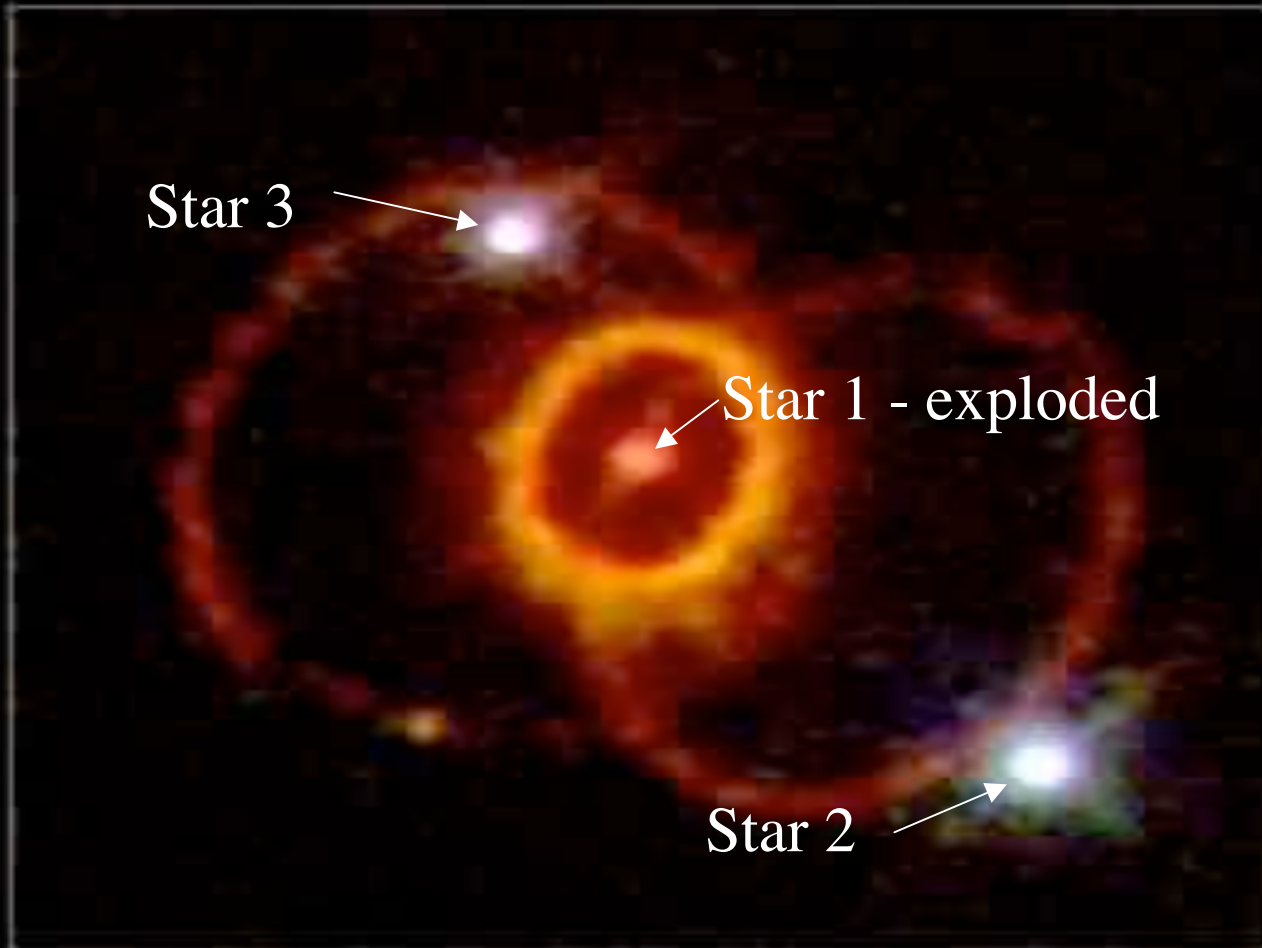


## Stars 1, 2, 3



# Close-up

# Supernova 1987A Rings



Hubble Space Telescope  
Wide Field Planetary Camera 2



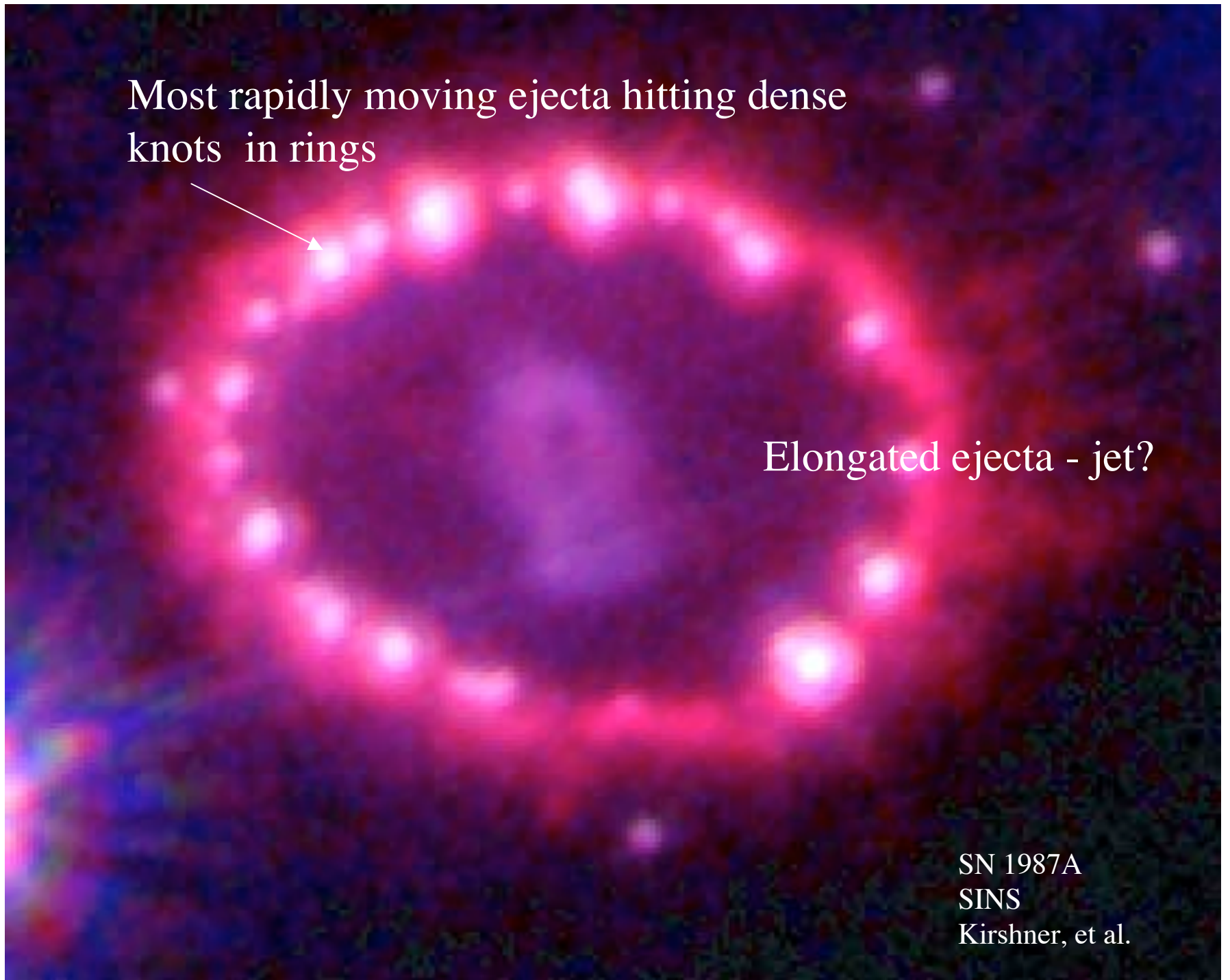


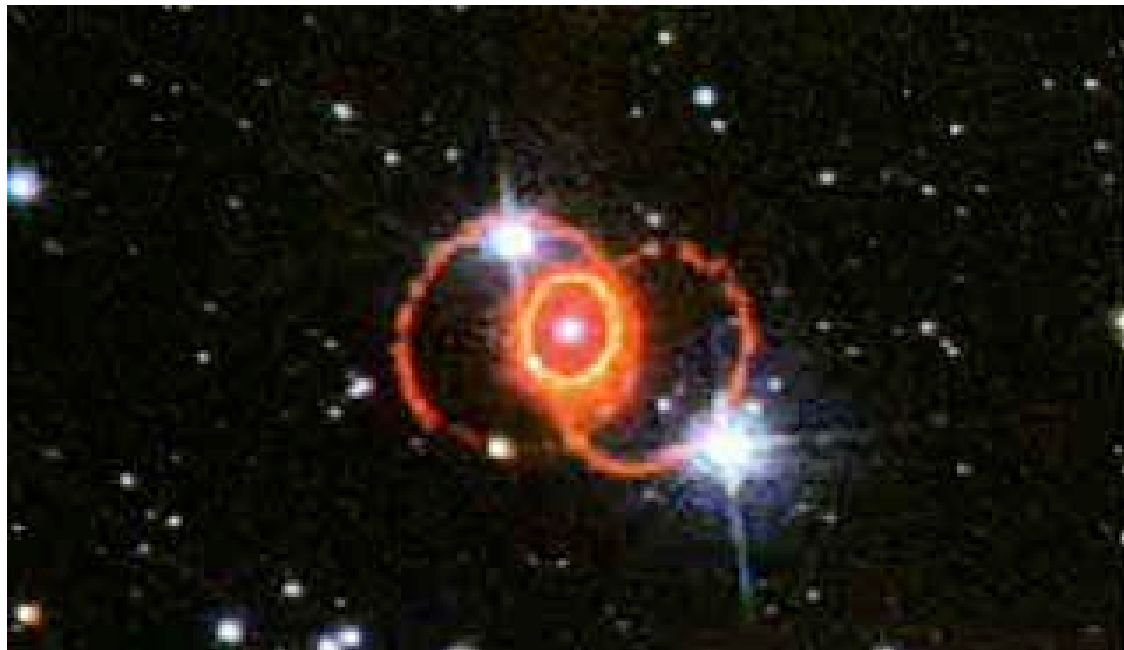
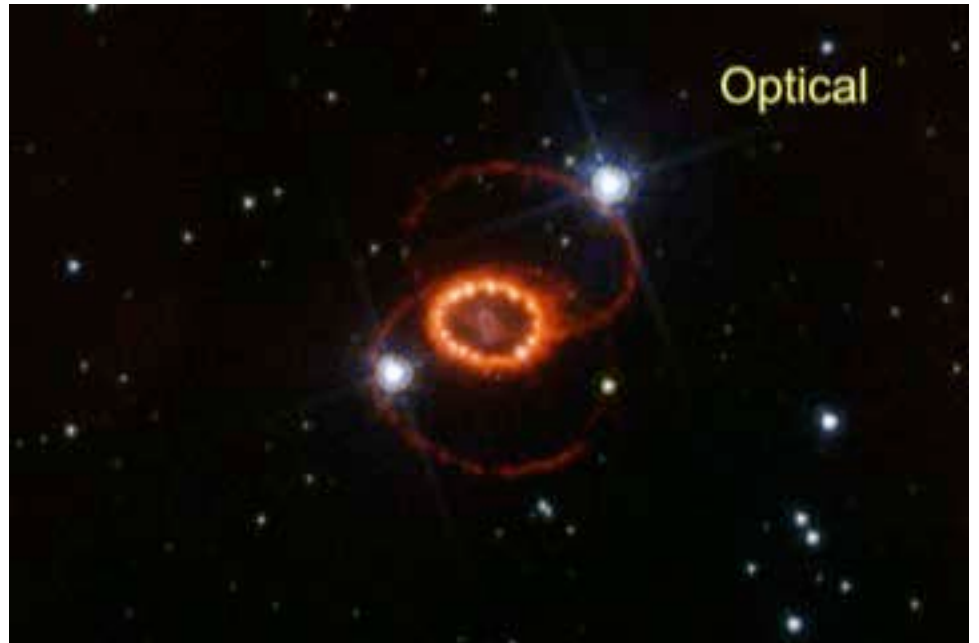
Most rapidly moving ejecta hitting dense knots in rings



Elongated ejecta - jet?

SN 1987A  
SINS  
Kirshner, et al.





Very recent data  
from refurbished  
Hubble Space  
Telescope

Red - 1994

Green - 2004

Blue - 2010

