



STEREO Space Weather Beacon: December 2003

D.A. Biesecker
NOAA/SEC

Ground Station Partners

- n Note the residence of the partner
- n
 - n Air Force ACE is the source
 - n The program is the core of the
 - n The Air Force research center is the
- n
 - n The NOAA Air Force NOAA is the
 - n The CNES Air Force is the
- n Next program is ACES Air Force
- n The Air Force is the NOAA Air Force
- n Others: British

Turbo vs Viterbi

n e e e r e c c i i i i i s i o n e e c c o o o e
r e r o e / o o i e r i r o e o o i e r i o o o o r o o
e c c i i i i .

n s s e s r e r r i i i i i r o o e r e i d e s i o o o o c s o

n i c e s i o o o e r s o o o o e o r o o e o

n o o o o o s o o o k o r e c c i i i s o o o r e

n o r s o o o e c c i i i e o o o o o r o o o r o o e s o

o e r s o o o o o o o r o e r s o o o o r o e r s

n o r o o o o i e s o o o o o o i i i i i e r

Other beacon issues

n e... s/c e... elec...
es...r...

n A...rec...DA...se...SEC

n S...re...ec...er...e...
i...rk...i...r...

n ...rie s...re...ec...r...

STEREO Science Relevant to SEC

n Genetic Screens

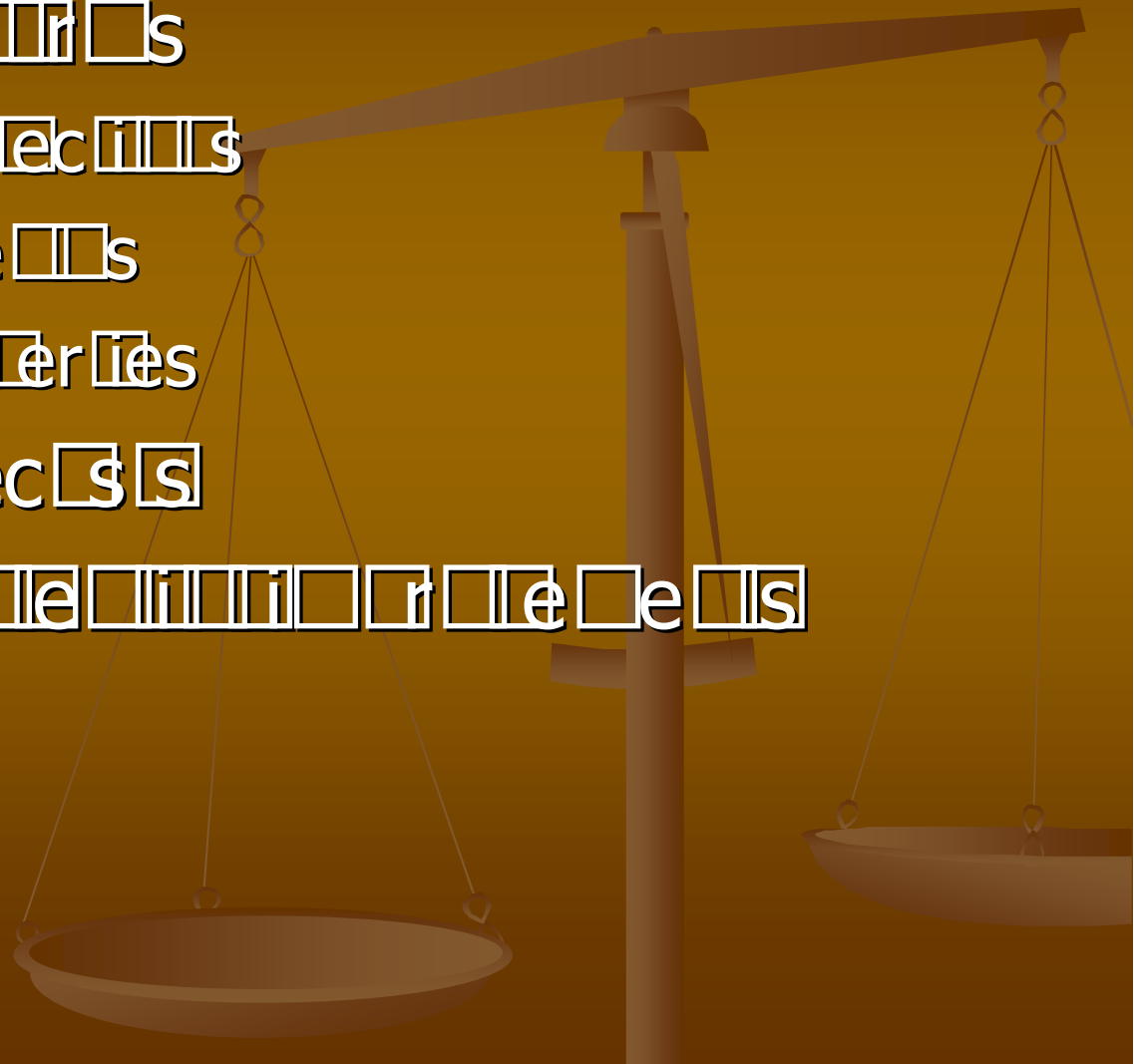
n Cross Sections

n Susceptibility

n Signal Properties

n Error Recalls

n Signal Detection Thresholds



Coronal Mass Ejections

n Core SOHO/ASCO

n CDES

n Coronal hole electric storm

n Coronal mass ejection CDES

n error margins in prediction

n responsible for geomagnetic storms

n SEEO

n CDES

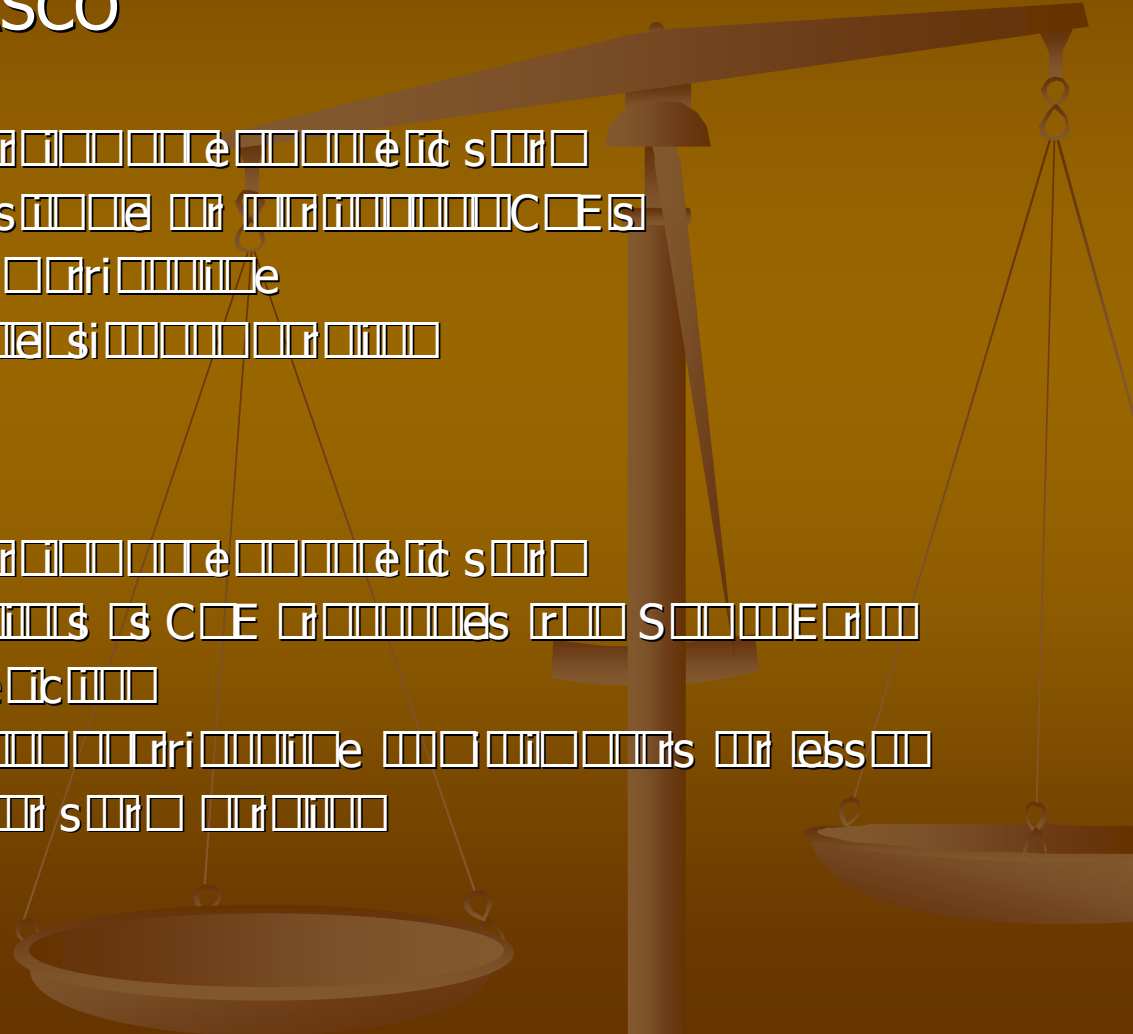
n Coronal hole electric storm

n Coronal mass ejection CDES

n Coronal mass ejection CDES

n Coronal mass ejection CDES

n Coronal mass ejection CDES



Recurring Solar Wind Streams

Core

These streams are the most prominent

and are the most common type of solar wind stream. They are characterized by their high speed and low density.

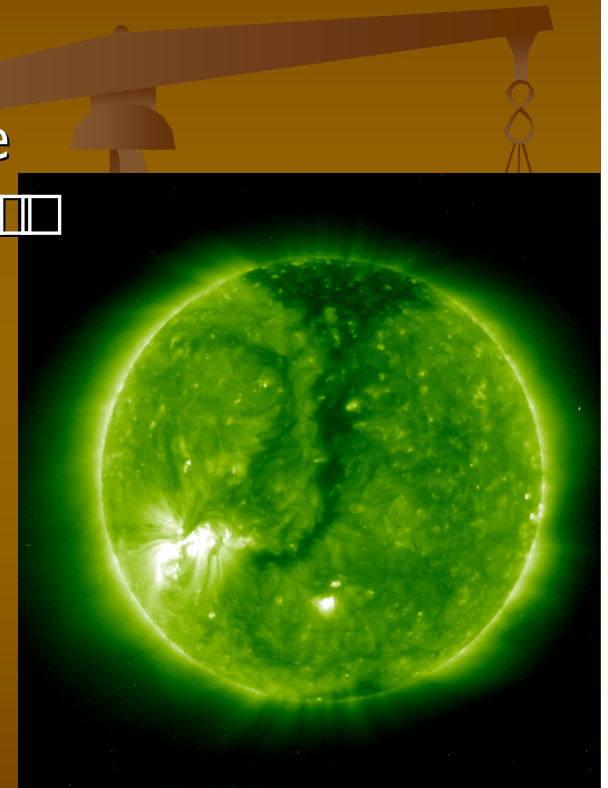
Slow Solar Wind

These streams are the most common type of solar wind stream. They are characterized by their low speed and high density.

They are the most common type of solar wind stream.

They are the most common type of solar wind stream.

They are the most common type of solar wind stream. They are characterized by their low speed and high density.



Long-term Forecasts

n Core competencies

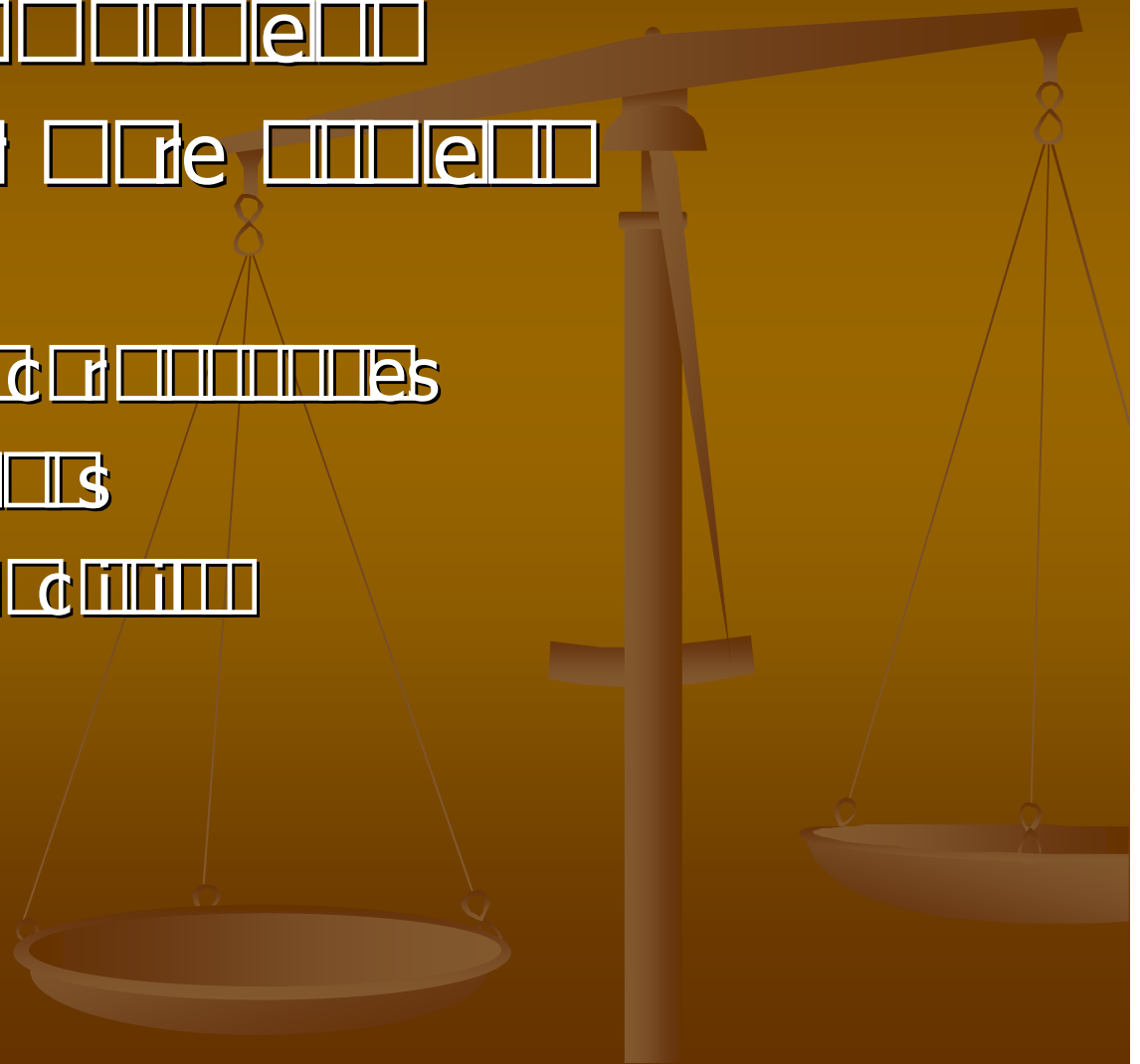
n Strategic resources

n Environmental

n Needs and requirements

n Needs and requirements

n Environmental










The Far Future







- n S&EO will be the primary source of
recruitment for the majority of
work units or organizations in
the future.
- n The technologies such as
recreation like this can be
S&EO will be the primary source of
recruitment for the majority of
work units or organizations in
the future.
- n The primary source of

Space Weather Beacon Data

n A  esire 

n  S  rec s  i 
 e e  e r 

n  e i  e  re  ires r  e  s

n  S  rec s  i 
 e e  e r 

n  ic  i  e  re  s  se 

e.g. CME related geomag storm

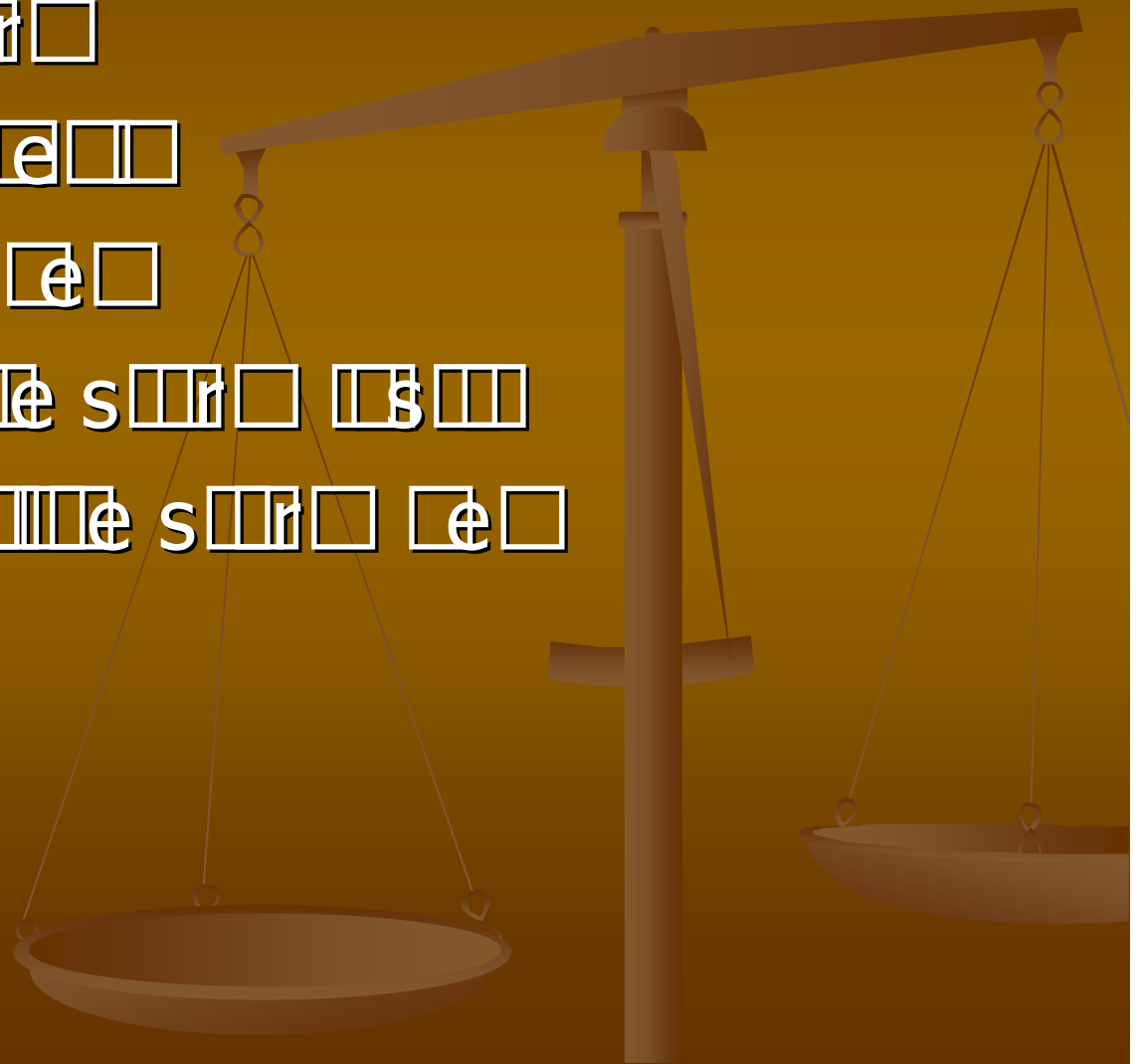
n Directly correlated

n Significant direct

n correlation

n between geomagnetic storm and

n solar storm

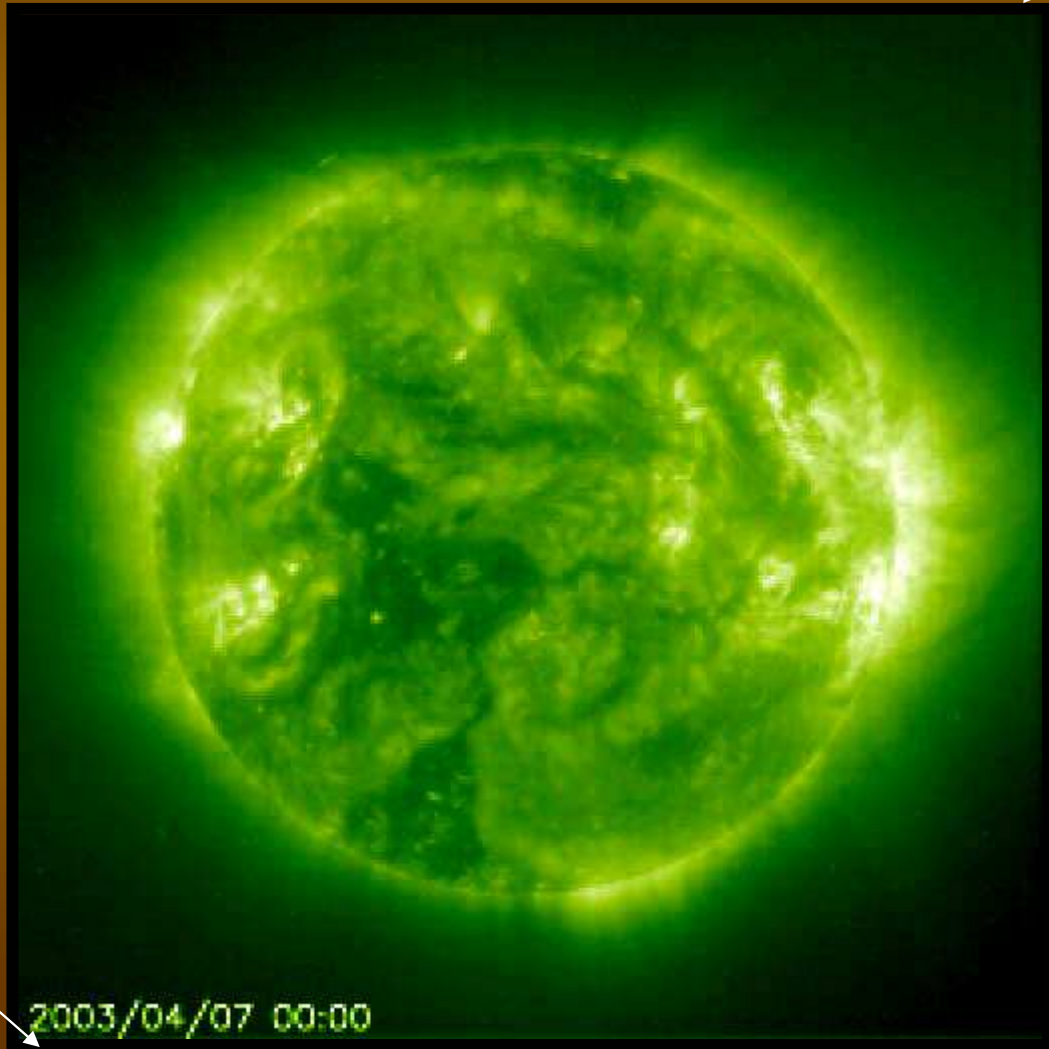


256 x 256 EIT Images

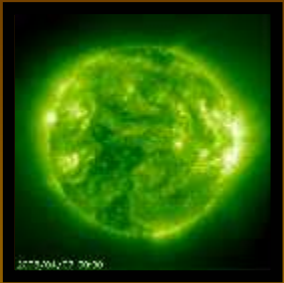


12 min cadence
10.4"/pixel

2x Enlargement

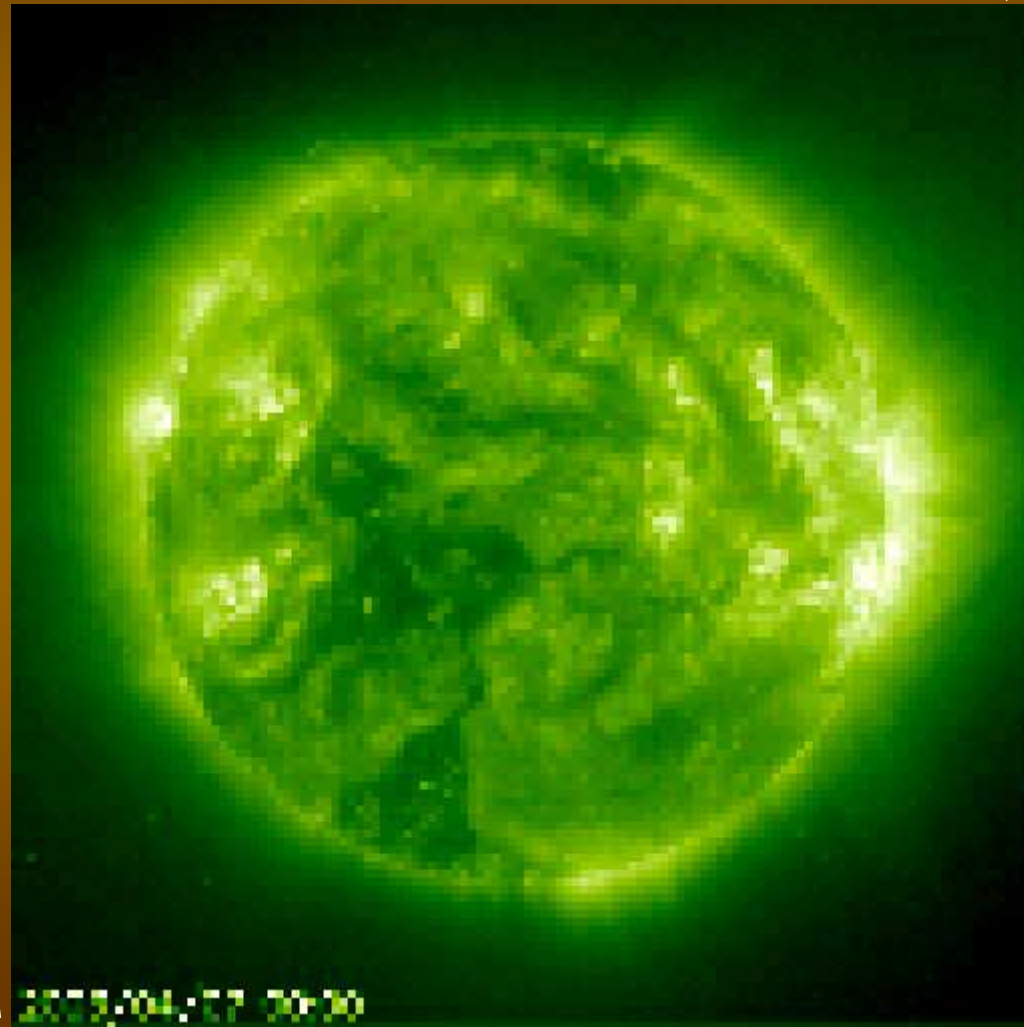


128 x 128 EIT Images

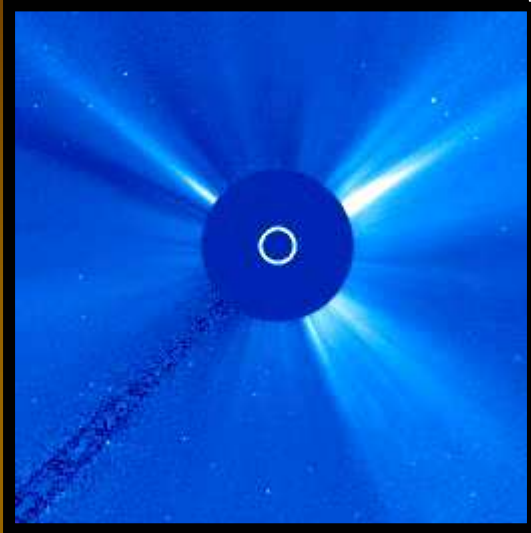


12 min cadence
20.8"/pixel

4x enlargement



256 x 256 LASCO C3 Images



~30 min cadence
224"/pixel

2x Enlargement

