on the upcoming SpaceX CRS-10 resupply mission to the International Space Station a dragon spacecraft will deliver the stratospheric aerosol and gas experiment or SAGE three instrument to study ozone in the atmosphere once mounted on the space station SAGE 3 will measure the your sunscreen or ozone along with other gases aerosols and tiny particles in the atmosphere following years of global efforts to significantly reduce the number of ozone-depleting substances experts now we're optimistic that the ozone layer will recover while
watching saves three is scheduled for early 2017 preparations have been and worked for several years sage 3 team actually began back in September of 2011 we sent a delegation of engineers out to Langley to meet with the sage team and to learn a little bit about their payload and to offer our expertise here at KSC and how we could help make their payload successful sage 3 now is being tested in the high bay F Kennedy Space Station processing facility or s SPF world-class processing laboratory every American launched element for
construction of the ISS of cargo and

each experiment is prepared and checked

out in the S SPF a crucial part of a

premier multi-user spaceport KSC offers

no stroll support to the stage 3 team

when they arrive at KSC basically we

offer them anything they need to make

their work here and an SSP of high base

successful one unique requirement that

the sage 3 team had was the need for a

super clean room we spent about a year

to develop design and build a super

clean clean room clean tent in the SS PF

high bay and this is considered a class
10k clean room which basically means

that within any given cubic foot of air

inside the tent there are less than

10,000 particles greater than half micron in size so and this is due to the sensitivity in the optics of the payload

this 10k clean tent is actually about ten times cleaner than the air and the SPF high bay it's about 150 times cleaner than the air in the average living room to ensure SAGE 3 will be ready to go to work once it arrives at the space station Kennedy experts have been assisting Langley Research Center engineers and conducting extensive
checks in the special processing area

of the SSP I've been more involved in

helping them coordinate their testing

with our ISS simulators so that they can

do their command and data handling

checkouts and make sure that everything

is going to flow the data correctly once

they're on orbit and gathering science

once age 3 is installed on the space

station getting sending back data

so what's great about this science is

they're going to try to see or verify

whether those efforts that have been

made here on earth have actually helped
improve the ozone layer back. I just wish

all the payload teams

and the science teams great success.

know they're doing important work for

our future generations

[Music]