instead of ice runways in sight.

copy field inside Atlantis NASA's Kennedy Space Center in Florida and Edwards Air Force Base in California are

well known landing sites for the space shuttle fleet but the agency has a roster of runways around the globe that could host a shuttle in an emergency long before a shuttle crew spots its intended landing target mission controllers are closely monitoring the spacecraft the crew and the weather several landing sites before issuing a goal for deorbit burn meanwhile support
crews are ready and eager to usher the
astronauts in on the last leg of their
journey wherever that may be the
preferred finish line is the shuttles' home base at Kennedy a 15,000 foot long runway that's about as wide as the length of a football field it's just awesome to see this big heavy bulky thing coming out of the sky and almost coming straight down like a brick I always say it's like a brick and it just glides out in Lancing construction of Kennedy's Shuttle Landing Facility wrapped up in 1976 but the site didn't
host any shuttles until 1984 from the

first shuttle mission in 1981 the

primary landing site was Edwards Air

Force Base adjacent to NASA's Dryden

Flight Research Center in California

Richard Merritt a landing Support

Manager with the United Space Alliance

says Florida's marshy terrain is the

main reason it took nearly a decade to

move from one coast to another we're

still a research and development type of

aircraft spacecraft it just weren't

comfortable with the target here if you

look from above and looking on the

...
runway each side has a lot of water so

44 00:01:43,019 --> 00:01:47,699 if you didn't make the runway here you'd

45 00:01:44,969 --> 00:01:50,280 be talking to the alligator so out in

46 00:01:47,700 --> 00:01:53,100 the desert we landed on the dry lake bed

47 00:01:50,280 --> 00:01:54,750 it's just lots of air lots of room to

48 00:01:53,099 --> 00:01:56,699 had some kind of problem and you had

49 00:01:54,750 --> 00:01:57,659 didn't quite make the runway so I

50 00:01:56,700 --> 00:02:00,630 believe that's the difference much

51 00:01:57,659 --> 00:02:02,070 better target Columbia was the first

52 00:02:00,629 --> 00:02:04,199 shuttle to complete a mission when it

53 00:02:02,069 --> 00:02:06,989 touched down on that dry expansive

54 00:02:04,200 --> 00:02:23,430 target April 14th 1981

55 00:02:06,989 --> 00:02:25,469 ending STS 1 as NASA's backup site today

56 00:02:23,430 --> 00:02:27,810 mainly because of Florida's often

57 00:02:25,469 --> 00:02:30,629 finicky weather Edwards has welcomed
home more than 50 shuttle crews the main

difference in landing a shuttle at

Kennedy and Edwards is all in the

processing the biggest difference here

we land and say three or four hours

later we're telling the vehicle into the

orbiter processing facility into a

hangar out there we tow it if to the

mate demate device the MDD and we have

site access platforms that lower down

around the orbiter and we do all the

processing that takes us seven days from

landing to being ready to ferry after we

attached the tail cone and back out and
everything where it takes us seven seven

half days to do that so it's all done

out in the elements and we have had rain

and hail and lightning all those

elements to work around out there Greg

Kennedy and Edwards aren't the only

there's also white sand space Harbor in

New Mexico

it's where astronauts practice landing

their shuttle training aircraft because

of its close proximity to NASA's Johnson

Space Center in Houston it's only been

called upon one time to host a real
shuttle landing though Columbia on the

STS 3 mission our March 30th 1982

Merrit says it was tough to process the

shuttle in the gypsum filled desert and

there's a reason it's called white sands

parts of it looks like a moon with the

dunes it's just pure pure white part of

the desert is and I guess some of it

just got growth and stuff but when the

wind blows it just kind of shifts it

around so it's a real fine powder almost

quite like flour but it's it's real fine

and gets into everything

after that first and only landing NASA
chose to relocate the processing
turnaround area to minimize the wind the

end of a mission is not the only time
NASA focuses on a landing site if a
shuttle were to encounter a problem
during launch or entry it could return
to a transoceanic abort landing site
also called a towel site there are two
in Spain and one in southern France
other countries that once hosted towel
sites include the Republic of the Gambia
Senegal and Morocco this reminds me of
the site we used to have in in bangura
Morocco it was a landing strip out in
the middle of the desert with a tower
and very little else and we build a

building there and and we we used that

for missions all the way up until the

early 2000s when we went to close that

site and opened up estrous France Glenn

Lockwood flies out to a towel site

before every launch and says even if

it's a perfect day in Florida

bad weather elsewhere could be a

showstopper our number one concern here

is safety the site needs to be ready to

support an orbiter landing for every

launch that's why we augment three-tail

sites because weather sometimes
eliminates one perhaps two sites
sometimes all three tell sites if all
three tell sites are down because of weather then we cannot launch in the
space shuttle programs nearly 30-year history a tell site has never been needed but that doesn't change the intensity of preparations for the team
Roger roll Columbia we're looking back in 99 as Eileen Collins mission she was commander at that time and we had some technical problem with the vehicle upon launch and so we were concerned that we might be needed but we
weren't thankfully we've never been used

and of course everybody when we go over

there we are basically programmed to be

ready but we are all hoping that we will

not be needed as the space shuttle

program comes to an end landing support

team members are looking forward to

getting their hands on each space

shuttle for the last time it's

excitement and anxiousness and you know

and some sadness in there because they

know it's wrapping up so it each one as

we get closer to the end means a lot to

everybody