



1  
00:00:07,990 --> 00:00:04,710  
there was a time

2  
00:00:10,950 --> 00:00:08,000  
in the american frontier west

3  
00:00:13,190 --> 00:00:10,960  
when the federal government had forts

4  
00:00:15,829 --> 00:00:13,200  
and they conducted business and missions

5  
00:00:16,870 --> 00:00:15,839  
in these forts along the lines that they

6  
00:00:19,590 --> 00:00:16,880  
wanted

7  
00:00:22,390 --> 00:00:19,600  
but the supplies for the forts

8  
00:00:23,830 --> 00:00:22,400  
were contracted out to american free

9  
00:00:26,950 --> 00:00:23,840  
enterprise

10  
00:00:28,630 --> 00:00:26,960  
supplies

11  
00:00:31,589 --> 00:00:28,640  
to the frontier

12  
00:00:33,430 --> 00:00:31,599  
using wagon trains and eventually they

13  
00:00:35,350 --> 00:00:33,440

built railroads

14

00:00:37,270 --> 00:00:35,360  
all with the help from the federal

15

00:00:40,549 --> 00:00:37,280  
government

16

00:00:42,950 --> 00:00:40,559  
and this eventually led to the

17

00:00:45,590 --> 00:00:42,960  
settlement of the frontier that we call

18

00:00:48,229 --> 00:00:45,600  
the west

19

00:00:50,549 --> 00:00:48,239  
fast forward 150 years

20

00:00:51,910 --> 00:00:50,559  
and we are seeing the same story being

21

00:00:53,750 --> 00:00:51,920  
replayed

22

00:00:56,709 --> 00:00:53,760  
the settings a little different the

23

00:00:59,750 --> 00:00:56,719  
frontier is now space

24

00:01:00,709 --> 00:00:59,760  
perhaps the ultimate frontier

25

00:01:04,070 --> 00:01:00,719  
and

26  
00:01:06,789 --> 00:01:04,080  
the mission is still being conducted by

27  
00:01:11,350 --> 00:01:06,799  
the federal government however the

28  
00:01:13,990 --> 00:01:11,360  
supplies are about to be delivered via

29  
00:01:16,070 --> 00:01:14,000  
american free enterprise

30  
00:01:18,149 --> 00:01:16,080  
and this

31  
00:01:19,670 --> 00:01:18,159  
tried and trued

32  
00:01:22,789 --> 00:01:19,680  
system

33  
00:01:24,390 --> 00:01:22,799  
which helped settle the american west

34  
00:01:26,950 --> 00:01:24,400  
will

35  
00:01:32,069 --> 00:01:26,960  
help contribute to getting

36  
00:01:37,350 --> 00:01:33,990  
now the first

37  
00:01:40,469 --> 00:01:37,360  
american free enterprise

38  
00:01:42,469 --> 00:01:40,479

delivery of goods and supplies is going

39

00:01:45,190 --> 00:01:42,479

to occur with spacex

40

00:01:47,670 --> 00:01:45,200

and their spacecraft dragon

41

00:01:48,789 --> 00:01:47,680

on its first

42

00:01:51,030 --> 00:01:48,799

wagon

43

00:01:52,870 --> 00:01:51,040

journey to the international space

44

00:01:55,429 --> 00:01:52,880

station

45

00:01:58,709 --> 00:01:55,439

then there will be other vehicles

46

00:02:00,950 --> 00:01:58,719

designed by orbital sciences cygnus and

47

00:02:03,109 --> 00:02:00,960

perhaps even more

48

00:02:05,590 --> 00:02:03,119

and they will be bringing supplies to

49

00:02:06,789 --> 00:02:05,600

space station so that we can continue to

50

00:02:10,550 --> 00:02:06,799

conduct

51  
00:02:12,390 --> 00:02:10,560  
the business of exploring space in this

52  
00:02:14,550 --> 00:02:12,400  
frontier

53  
00:02:16,550 --> 00:02:14,560  
when

54  
00:02:19,110 --> 00:02:16,560  
dragon shows up here in a couple of

55  
00:02:19,990 --> 00:02:19,120  
weeks andre kuipers and i

56  
00:02:23,270 --> 00:02:20,000  
will be

57  
00:02:26,229 --> 00:02:23,280  
the crew that flies a robotic arm will

58  
00:02:28,630 --> 00:02:26,239  
be working together and the dragon

59  
00:02:32,070 --> 00:02:28,640  
vehicle does not dock the space station

60  
00:02:34,229 --> 00:02:32,080  
it flies close to space station and then

61  
00:02:37,509 --> 00:02:34,239  
andre and i working together

62  
00:02:40,150 --> 00:02:37,519  
will fly the arm close to the vehicle

63  
00:02:42,309 --> 00:02:40,160

and we'll kind of lasso it will snag it

64

00:02:44,309 --> 00:02:42,319

and then we'll use the arm to manipulate

65

00:02:46,550 --> 00:02:44,319

the vehicle and bring it up to one of

66

00:02:48,630 --> 00:02:46,560

our docking systems we call this

67

00:02:51,830 --> 00:02:48,640

birthing not docking

68

00:02:53,430 --> 00:02:51,840

and then once it is birthed to space

69

00:02:56,309 --> 00:02:53,440

station we'll

70

00:02:58,550 --> 00:02:56,319

uh outfit the hatch area and open the

71

00:03:01,750 --> 00:02:58,560

hatch and then we can start offloading

72

00:03:05,030 --> 00:03:01,760

the supplies so uh hang on to your hats

73

00:03:08,149 --> 00:03:05,040

the first wagon of supplies

74

00:03:10,550 --> 00:03:08,159

will be arriving here shortly

75

00:03:12,790 --> 00:03:10,560

when dragon comes to space station here

76

00:03:14,470 --> 00:03:12,800

in a couple of weeks

77

00:03:17,430 --> 00:03:14,480

it's going to first

78

00:03:18,550 --> 00:03:17,440

fly close and that's because this is the

79

00:03:21,110 --> 00:03:18,560

first

80

00:03:23,110 --> 00:03:21,120

of a commercial vehicle to come to space

81

00:03:25,430 --> 00:03:23,120

station we want to make sure we have all

82

00:03:27,990 --> 00:03:25,440

our ducks in a line and instead of just

83

00:03:29,110 --> 00:03:28,000

flying right up about 30 feet from

84

00:03:30,070 --> 00:03:29,120

station

85

00:03:32,630 --> 00:03:30,080

we're gonna

86

00:03:34,710 --> 00:03:32,640

first just kind of fly close it's like

87

00:03:36,710 --> 00:03:34,720

sticking your toes in the water just to

88

00:03:38,070 --> 00:03:36,720

make sure that everything's okay before

89

00:03:40,869 --> 00:03:38,080

you jump in

90

00:03:42,550 --> 00:03:40,879

and and that's that's a part of the

91

00:03:44,309 --> 00:03:42,560

demonstration

92

00:03:47,030 --> 00:03:44,319

part of this mission

93

00:03:48,470 --> 00:03:47,040

and then after after it's done the the

94

00:03:50,470 --> 00:03:48,480

close flyby

95

00:03:52,229 --> 00:03:50,480

then we're going to regroup

96

00:03:53,910 --> 00:03:52,239

it's going to come back and it's going

97

00:03:56,710 --> 00:03:53,920

to get real close it's going to fly 10

98

00:03:58,630 --> 00:03:56,720

meters away that's about 30 feet and

99

00:04:02,309 --> 00:03:58,640

it's just going to hover there while

100

00:04:03,990 --> 00:04:02,319

andre and i working the canada arm are

101  
00:04:07,670 --> 00:04:04,000  
gonna uh

102  
00:04:08,949 --> 00:04:07,680  
snag the dragon vehicle and once we've

103  
00:04:10,550 --> 00:04:08,959  
captured the vehicle on the end of the

104  
00:04:12,710 --> 00:04:10,560  
arm then we can

105  
00:04:14,550 --> 00:04:12,720  
readily manipulate the vehicle and put

106  
00:04:17,749 --> 00:04:14,560  
it against one of our

107  
00:04:20,310 --> 00:04:17,759  
our common berthing mechanism ports

108  
00:04:24,629 --> 00:04:20,320  
and then uh we'll

109  
00:04:26,550 --> 00:04:24,639  
uh drive the bolts to to bolt the the

110  
00:04:31,110 --> 00:04:26,560  
dragon vehicle to

111  
00:04:32,870 --> 00:04:31,120  
the nader port on node two that's where

112  
00:04:35,430 --> 00:04:32,880  
it's currently planned to go and then

113  
00:04:37,909 --> 00:04:35,440

once it's all buttoned up

114

00:04:40,950 --> 00:04:37,919

there's about a four hour process where

115

00:04:42,790 --> 00:04:40,960

we do leak checks and then we open up

116

00:04:44,550 --> 00:04:42,800

one hatch and there's a little vestibule

117

00:04:47,510 --> 00:04:44,560

area a small volume

118

00:04:50,230 --> 00:04:47,520

and a whole rat's nest of wires and

119

00:04:51,590 --> 00:04:50,240

tubes and hoses and things in this area

120

00:04:53,830 --> 00:04:51,600

and we're going to be connecting up a

121

00:04:55,670 --> 00:04:53,840

bunch of those and then

122

00:04:57,670 --> 00:04:55,680

once we have the dragon vehicle all

123

00:05:00,390 --> 00:04:57,680

powered up then we'll open up the

124

00:05:03,350 --> 00:05:00,400

dragon's hatch and hopefully there'll be

125

00:05:05,029 --> 00:05:03,360

a bunch of goodies inside for us usually

126

00:05:08,310 --> 00:05:05,039

resupply vehicles when the when the

127

00:05:09,830 --> 00:05:08,320

russians fly progress vehicle up

128

00:05:12,230 --> 00:05:09,840

they always put a few goodies in there

129

00:05:15,029 --> 00:05:12,240

for us like fresh fruit which we live in

130

00:05:16,950 --> 00:05:15,039

this mechanized environment where all

131

00:05:18,790 --> 00:05:16,960

our food comes from a bag

132

00:05:21,270 --> 00:05:18,800

and it's really really nice to get some

133

00:05:23,749 --> 00:05:21,280

fresh fruit and the russians will

134

00:05:26,870 --> 00:05:23,759

provide us fresh fruit on the progress

135

00:05:28,950 --> 00:05:26,880

atv docked here a few weeks ago

136

00:05:31,350 --> 00:05:28,960

and well they weren't able to get any

137

00:05:33,110 --> 00:05:31,360

fresh fruit on there i'm kind of hoping

138

00:05:34,310 --> 00:05:33,120

that dragon will have

139

00:05:36,230 --> 00:05:34,320

at least

140

00:05:38,230 --> 00:05:36,240

some kind of fresh fruit for us

141

00:05:40,870 --> 00:05:38,240

as sort of a little goodie when we open