



1
00:00:32,869 --> 00:00:29,569
our children our future we want the best

2
00:00:38,420 --> 00:00:32,879
for them we want health prosperity and

3
00:00:40,600 --> 00:00:38,430
peace virtually every advance in human

4
00:00:44,450 --> 00:00:40,610
endeavor has been the result of research

5
00:00:47,329 --> 00:00:44,460
long painstaking labor and commitment to

6
00:00:49,660 --> 00:00:47,339
a better way of life in a sense the

7
00:00:54,110 --> 00:00:49,670
future is the direct result of the past

8
00:01:01,810 --> 00:00:54,120
the consequence of 10 20 50 years of

9
00:01:06,530 --> 00:01:03,829
dreaming and building is something

10
00:01:08,750 --> 00:01:06,540
America knows about since the Wright

11
00:01:11,109 --> 00:01:08,760
brothers flew we've realized the

12
00:01:49,930 --> 00:01:11,119
benefits of commitment to air and space

13
00:01:56,960 --> 00:01:53,690

now there's a new dream a next step and

14

00:01:59,530 --> 00:01:56,970

perhaps for the first time we have the

15

00:02:01,940 --> 00:01:59,540

major components already in place for

16

00:02:04,670 --> 00:02:01,950

realizing the dream of placing bigger

17

00:02:09,080 --> 00:02:04,680

and more useful payloads in Earth orbit

18

00:02:11,240 --> 00:02:09,090

and beyond by using the existing Space

19

00:02:14,360 --> 00:02:11,250

Shuttle booster rockets and external

20

00:02:16,250 --> 00:02:14,370

tank we have the ability to design and

21

00:02:24,740 --> 00:02:16,260

build an unmanned heavy launch vehicle

22

00:02:27,290 --> 00:02:24,750

now the system is shuttle cc4 cargo

23

00:02:29,240 --> 00:02:27,300

with shuttle see we can lift 100

24

00:02:32,720 --> 00:02:29,250

thousand pound payloads to the space

25

00:02:35,180 --> 00:02:32,730

station for example in all other aspects

26
00:02:37,640 --> 00:02:35,190
shuttle C works much the same as other

27
00:02:41,540 --> 00:02:37,650
current shuttle operations including

28
00:02:43,699 --> 00:02:41,550
cost-saving booster recovery the

29
00:02:46,220 --> 00:02:43,709
external tank is also common to both

30
00:02:48,620 --> 00:02:46,230
shuttles because the shuttle C cargo

31
00:02:51,740 --> 00:02:48,630
carrier uses the same orbiter main

32
00:02:54,050 --> 00:02:51,750
engines an interesting concept and

33
00:02:56,570 --> 00:02:54,060
proven technique is employed by shuttle

34
00:02:59,750 --> 00:02:56,580
C for carrying greater weights to

35
00:03:02,600 --> 00:02:59,760
greater heights once above the

36
00:03:08,350 --> 00:03:02,610
atmosphere shuttle C jettisons its cargo

37
00:03:13,400 --> 00:03:10,729
after the main engine firing is

38
00:03:22,729 --> 00:03:13,410

completed the external tank is also

39

00:03:28,020 --> 00:03:22,739

jettisoned once clear of the vehicle the

40

00:03:33,760 --> 00:03:31,180

in a sense the payload weight for

41

00:03:35,650 --> 00:03:33,770

shuttle si is not calculated based on

42

00:03:38,380 --> 00:03:35,660

bringing the entire vehicle to its

43

00:03:40,390 --> 00:03:38,390

mission destination that's very much the

44

00:03:45,190 --> 00:03:40,400

concept that help put men and equipment

45

00:03:47,220 --> 00:03:45,200

on the surface of the Moon the economies

46

00:03:49,720 --> 00:03:47,230

are realized in other ways as well

47

00:03:52,600 --> 00:03:49,730

because of its significant cargo

48

00:03:55,390 --> 00:03:52,610

capacity shuttle si can carry many

49

00:03:58,000 --> 00:03:55,400

payloads to orbit preassembled this

50

00:04:02,199 --> 00:03:58,010

means less time and effort in space to

51
00:04:04,900 --> 00:04:02,209
put things together once in orbit an

52
00:04:07,540 --> 00:04:04,910
orbital maneuvering vehicle part of the

53
00:04:09,880 --> 00:04:07,550
payload in this simulation can position

54
00:04:12,820 --> 00:04:09,890
the carrier and its payload to the space

55
00:04:14,590 --> 00:04:12,830
station for example for docking with an

56
00:04:16,990 --> 00:04:14,600
assist from jets in the tail of the

57
00:04:25,590 --> 00:04:17,000
carrier and from commands from the space

58
00:04:31,110 --> 00:04:28,200
but Space Station missions are just the

59
00:04:34,920 --> 00:04:31,120
beginning shuttle C can also launch

60
00:04:39,360 --> 00:04:34,930
planetary probes to Mars to Saturn to

61
00:04:42,630 --> 00:04:39,370
comets it can deliver large-scale

62
00:04:45,540 --> 00:04:42,640
support for lunar exploration and in

63
00:04:48,000 --> 00:04:45,550

terms of pure practicality shuttle C

64

00:04:51,780 --> 00:04:48,010

provides an unmanned test environment

65

00:04:54,000 --> 00:04:51,790

for advanced shuttle systems in real

66

00:04:57,270 --> 00:04:54,010

everyday terms we can all understand

67

00:05:00,570 --> 00:04:57,280

just how does shuttle C stack up against

68

00:05:03,780 --> 00:05:00,580

other known space systems shuttle C

69

00:05:06,410 --> 00:05:03,790

provides a safe unmanned and economical

70

00:05:09,810 --> 00:05:06,420

means of placing large payloads in orbit

71

00:05:13,440 --> 00:05:09,820

the shuttle as we know it today can

72

00:05:16,860 --> 00:05:13,450

carry payloads of up to 45,000 pounds to

73

00:05:19,740 --> 00:05:16,870

a 160 nautical mile orbit with the

74

00:05:25,610 --> 00:05:19,750

advanced solid rocket motor the ASRM

75

00:05:31,010 --> 00:05:27,960

current unmanned expendable launch

76
00:05:34,290 --> 00:05:31,020
vehicles such as the Titan 3 can place

77
00:05:36,480 --> 00:05:34,300
29,000 pounds in the same orbit the

78
00:05:40,640 --> 00:05:36,490
upgraded Titan 4 currently under

79
00:05:44,670 --> 00:05:40,650
development will carry 38,000 pounds

80
00:05:47,580 --> 00:05:44,680
shuttles C can place over 114 thousand

81
00:05:50,790 --> 00:05:47,590
pounds to the same orbit with an upper

82
00:05:55,140 --> 00:05:50,800
stage it can place 20,000 pounds in a

83
00:05:57,450 --> 00:05:55,150
geosynchronous orbit of 22,000 miles all

84
00:06:00,180 --> 00:05:57,460
of this capability to support the needs

85
00:06:02,760 --> 00:06:00,190
of already identified programs is

86
00:06:06,450 --> 00:06:02,770
possible with a minimum of development a

87
00:06:08,880 --> 00:06:06,460
minimum of time no new technology is

88
00:06:13,200 --> 00:06:08,890

needed to build shuttle see the launch

89

00:06:15,480 --> 00:06:13,210

facilities are already in place we're

90

00:06:18,090 --> 00:06:15,490

talking about dreams and imagination for

91

00:06:21,300 --> 00:06:18,100

certain but we're also talking about a

92

00:06:23,430 --> 00:06:21,310

future reality by the time these

93

00:06:26,580 --> 00:06:23,440

children complete elementary school

94

00:06:29,150 --> 00:06:26,590

shuttle C could be in operation helping

95

00:06:32,380 --> 00:06:29,160

mankind find answers to questions

96

00:06:35,960 --> 00:06:32,390

solutions to earthbound riddles

97

00:06:39,530 --> 00:06:35,970

America has the ingenuity we can use it

98

00:06:52,559 --> 00:06:39,540

or we can rely on others the choice is

99

00:06:58,540 --> 00:06:55,420

shuttle si is not the answer to all of

100

00:07:00,999 --> 00:06:58,550

our needs but it is the logical next

101

00:07:03,760 --> 00:07:01,009

step in a carefully considered timely

102

00:07:07,420 --> 00:07:03,770

progression to put America back on the