



SpaceX Removes Dragon Crew Arm to Boost Starship in Florida

Description

Pad 40 has been the main launch site for the Falcon 9 rocket for most of its history, while Pad 39A has hosted crew launches and supported SpaceX's increasing launch schedule. However, it appears that the Falcon 9 launch frequency, which reached 165 missions last year, may be levelling off as the company shifts focus to its Starship rocket. SpaceX has been reducing the time needed to prepare Pad 40 for launches, now completing this process in less than 48 hours.

If necessary, SpaceX officials stated they could reinstall the crew arm for Dragon missions from Pad 39A.

Bill Gerstenmaier, SpaceX's vice president of build and flight reliability, highlighted another important reason for removing the crew arm at Pad 39A. The bearings connecting the arm to the launch pad's tower require repairs.

"To access those, the arm needs to be removed," Gerstenmaier explained. "Those bearings must be taken out and replaced. We will carry out this work at the Kennedy Space Center. Our goal is not to rush to reinstall the arm; if we get called for a mission, we have ample time to put it back up."

SpaceX continues to launch Falcon 9 and Falcon Heavy rockets from Pad 39A, despite nearby construction for Starship. Gerstenmaier noted that this does not hinder their launch capabilities. However, this might change as SpaceX begins testing Starships, which could lead to Pad 39A being closed to personnel.

Gerstenmaier confirmed the intent to replace the bearings and upgrade them before reinstalling the arm when it is needed for future missions.

Vocabulary List:

1. **Frequency** /'fri:kwən.si/ (noun): The rate at which something occurs over a particular period of time.
2. **Installed** /ɪn'stɔ:ld/ (verb): Set in position for use.
3. **Reinstall** /,ri:ɪn'stɔ:l/ (verb): To install something again.
4. **Maintenance** /'meɪn.tə.nəns/ (noun): The process of keeping something in good condition.
5. **Capabilities** /,keɪ.pə'bɪl.ɪ.tiz/ (noun): The power or ability to do something.
6. **Confirm** /kən'fɜ:rm/ (verb): To state or prove the truth of something.

Comprehension Questions



Multiple Choice

1. What is the main launch site for the Falcon 9 rocket?
Option: Pad 40
Option: Pad 39A
Option: Kennedy Space Center
Option: Starship Launch Site
2. What is the reason cited for reducing the Falcon 9 launch frequency?
Option: Focus on Starship rocket
Option: Technical issues
Option: Lack of funding
Option: Regulatory constraints
3. Where do SpaceX officials plan to conduct repairs on the bearings connecting the crew arm to the launch pad's tower?
Option: Kennedy Space Center
Option: Pad 40
Option: Starship Launch Site
Option: International Space Station
4. What is Bill Gerstenmaier's role at SpaceX?
Option: Vice President of Build and Flight Reliability
Option: Lead Engineer
Option: Chief Financial Officer
Option: Head of Marketing
5. Which launch site is known to have hosted crew launches and supported SpaceX's increasing launch schedule?
Option: Pad 40
Option: Pad 39A
Option: Kennedy Space Center
Option: Starship Launch Site
6. What is SpaceX's goal regarding the reinstallation of the crew arm for future missions?
Option: Not to rush
Option: Complete within 24 hours
Option: Outsource the task



Option: Implement automation

True-False

7. SpaceX officials mentioned that they could reinstall the crew arm for Dragon missions from Pad 40 if necessary.
8. Bearings connecting the crew arm to the launch pad's tower require repairs, according to Bill Gerstenmaier.
9. Falcon 9 and Falcon Heavy rockets are launched from Pad 39A.
10. Pad 39A may be closed to personnel as SpaceX begins testing Starships.
11. SpaceX's focus is mainly on Falcon 9 missions, rather than Starship rocket development.
12. The crew arm will be reinstalled without any upgrades before future missions.

Gap-Fill

13. SpaceX completed the process of preparing Pad 40 for launches in less than _____ hours.
14. Bill Gerstenmaier confirmed the intent to replace and upgrade the bearings before reinstalling the arm when it is needed for future missions to ensure reliability post _____.
15. Pad 39A has hosted crew launches and supported SpaceX's increasing launch schedule, while Pad 40 has been the main launch site for the _____ for most of its history.
16. The bearings connecting the arm to the launch pad's tower require repairs. To access those, the arm needs to be removed and the bearings must be taken out and _____.
17. SpaceX has been reducing the time needed to prepare Pad 40 for launches, now completing this process



in less than _____ hours.

18. Bill Gerstenmaier is the vice president of build and flight _____ at SpaceX.

Answer

Multiple Choice: 1. Pad 40 2. Focus on Starship rocket 3. Kennedy Space Center 4. Vice President of Build and Flight Reliability 5. Pad 39A 6. Not to rush

True-False: 7. False 8. True 9. True 10. True 11. False 12. False

Gap-Fill: 13. 48 14. repairs 15. Falcon 9 rocket 16. replaced 18. reliability

CATEGORY

1. Sci/Tech - LEVEL4

POST TAG

1. B2
2. Dragon crew arm
3. ESL learning
4. esl news
5. Florida
6. Level 4
7. spaceX
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