# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 39

**[Docket No. FAA–2007–0223; Directorate Identifier 2007–NM–156–AD]**

**RIN 2120–AA64**

## Airworthiness Directives; Boeing Model 727 Airplanes

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede an existing airworthiness directive (AD) that applies to certain Boeing Model 727 series airplanes. The existing AD currently requires repetitive inspections to detect cracks and loose brackets of the elevator rear spar, and corrective actions if necessary. The existing AD also provides for an optional terminating action for the repetitive inspections. This proposed AD would reduce the repetitive intervals of the inspections, mandate the previously optional terminating action for the repetitive inspections, and no longer allow stop-drilling. This proposed AD results from new reports of cracks, elongated fastener holes, and loose fittings of the elevator rear spar. We are proposing this AD to prevent cracking of the elevator rear spar at the tab hinge locations, which could cause excessive freeplay of the elevator control tab and possible tab flutter, and consequent loss of control of the airplane.

**DATES:** We must receive comments on this proposed AD by January 7, 2008.

**ADDRESSES:** You may send comments by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov*. Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124–2207.

### Examining the AD Docket

You may examine the AD docket on the Internet at *http://www.regulations.gov*; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800–647–5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057–3356; telephone (425) 917–6577; fax (425) 917–6590.

**SUPPLEMENTARY INFORMATION:**

### Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2007–0223; Directorate Identifier 2007–NM–156–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov*, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### Discussion

On March 12, 1996, we issued AD 96–06–05, amendment 39–9542 (61 FR 11529, March 21, 1996), for certain Boeing Model 727 series airplanes. That AD requires repetitive inspections to detect cracks and loose brackets of the elevator rear spar and repair if necessary, and provides an optional terminating modification for the inspections. That AD was prompted by reports of cracking in the spar radii at the tab hinge location of the elevator rear spar. We issued that AD to prevent cracking in elements of the elevator rear spar assembly, which could result in excessive freeplay of the elevator control tab and possible tab flutter.

### Actions Since Existing AD Was Issued

Since we issued AD 96–06–05, we have received reports of additional cracks, elongated fastener holes, and loose fittings on airplanes on which the repetitive detailed inspections required by that AD have been initiated. We have determined that the existing long-term repetitive detailed inspections do not provide an acceptable level of safety. This determination, along with a better understanding of the human factors associated with numerous continual inspections, has led us to consider placing less emphasis on inspections and more emphasis on design improvements. Therefore, we have determined that it is necessary to reduce the repetitive intervals of certain inspections and to require replacement of the elevator rear spar with a new elevator rear spar and new support fittings to adequately address the identified unsafe condition of this proposed AD.

In addition, we have determined that the stop-drilling required by AD 96–06–05 does not provide an adequate level of safety. Therefore, in this proposed AD, stop-drilling of cracks of the elevator rear spar assembly is no longer considered to be an acceptable method of repair.

### Relevant Service Information

We have reviewed Boeing Service Bulletin 727–55–0089, Revision 1, dated March 2, 2000. (We referred to the original release of the service bulletin in AD 96–06–05 as the appropriate source of service information for the required actions.) The repetitive detailed inspections, stop-drill if necessary, and

optional terminating action (i.e., replacement of the elevator rear spar with a new elevator rear spar and support fittings) are identical to those actions specified in the original service bulletin. Revision 1 changes the part accountability paragraph and the list of airplane operators. No more work is necessary on airplanes changed per the original release of the service information, if the optional terminating action was done. Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

**FAA's Determination and Requirements of the Proposed AD**

We have evaluated all pertinent information and identified an unsafe condition that is likely to develop on other airplanes of the same type design. For this reason, we are proposing this AD, which would supersede AD 96–06–05 and would retain the requirements of the existing AD. This proposed AD would also require accomplishing the actions specified in service information described previously, except as discussed under ''Differences Between the Proposed AD and Service Information.''

**Differences Between the Proposed AD and Service Information**

Paragraph 1.A, ''Effectivity,'' of Boeing Service Bulletin 727–55–0089, Revision 1, contains an error in that it identifies only Model 727–100 and –200 series airplanes as the affected airplanes. Although Model 727, 727C, 727–100C, and 727–200F series airplanes were inadvertently omitted from that paragraph, those airplanes were identified by variable numbers in the effectivity listing. Therefore, the applicability of this proposed AD would affect Model 727, 727C, 727–100, 727–100C, 727–200, and 727–200F series airplanes.

As discussed previously, this proposed AD would require replacement of the elevator rear spar with a new elevator rear spar and support fittings, which would terminate the repetitive inspection requirements. The service information provides the terminating action as an option.

Where the service information describes stop-drilling as an interim method of repair, this proposed AD would not permit stop-drilling as an interim method of repair. As discussed previously, we have determined that, for the purposes of this proposed AD, stop-drilling does not provide an adequate level of safety.

Additionally, the service information recommends that certain repetitive inspection intervals be done within 1,600 flight hours or within 18 months, whichever occurs first. This proposed AD would require a repetitive interval not to exceed 1,600 flight hours for those inspections. Calendar time (i.e., ''18 months'') is not appropriate for addressing problems associated with fatigue such as the cracking addressed by this proposed AD. The determination that calendar time is not appropriate for addressing problems associated with fatigue also was addressed in the preamble of AD 96–06–05.

We have coordinated these differences with Boeing.

**Change to Existing AD**

This proposed AD would retain all requirements of AD 96–06–05. Since AD 96–06–05 was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have changed in this proposed AD, as listed in the following table:

REVISED PARAGRAPH IDENTIFIERS

| Requirement in AD 96–06–05 | Corresponding requirement in this proposed AD |
|---|---|
| paragraph (a) | paragraph (f). |
| paragraph (b) | paragraph (g). |
| paragraph (c) | paragraph (h). |
| paragraph (d) | paragraph (i). |
| paragraph (e) | paragraph (j). |
| paragraph (f) | paragraph (k). |
| paragraph (g) | paragraph (l). |

We have revised the applicability of the existing AD to identify model designations as published in the most recent type certificate data sheet for the affected models. In addition, we have revised the applicability of the existing AD to refer to the latest service bulletin (i.e., Boeing Service Bulletin 727–55–0089, Revision 1), and refer to affected models not identified in the referenced service bulletin, as discussed previously.

We have changed all references to a ''visual inspection'' in AD 96–06–05 to ''detailed inspection'' in this proposed AD. We also added a new note defining that inspection and renumbered subsequent notes.

**Costs of Compliance**

There are about 815 airplanes of the affected design in the worldwide fleet. The following table provides the estimated costs for U.S. operators to comply with this proposed AD.

ESTIMATED COSTS

| Action | Work hours | Average labor rate per hour | Parts | Cost per airplane | Number of U.S.-registered airplanes | Fleet cost |
|---|---|---|---|---|---|---|
| Detailed Inspection (required by AD 96–06–05). | 17 | $80 | None | $1,360, per inspection cycle. | 448 | $609,280, per inspection cycle. |
| Terminating action (new proposed action). | 416 | 80 | $14,975 | $48,255 | 448 | $21,618,240. |

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, ''General requirements.'' Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

**Regulatory Findings**

We have determined that this proposed AD would not have federalism implications under Executive Order

13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

1. Is not a ''significant regulatory action'' under Executive Order 12866;

2. Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket. See the **ADDRESSES** section for a location to examine the regulatory evaluation.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

### The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701.

### § 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by removing amendment 39–9542 (61 FR 11529, March 21, 1996) and adding the following new airworthiness directive (AD):

**Boeing:** Docket No. FAA–2007–0223; Directorate Identifier 2007–NM–156–AD.

#### Comments Due Date

(a) The FAA must receive comments on this AD action by January 7, 2008.

#### Affected ADs

(b) This AD supersedes AD 96–06–05.

#### Applicability

(c) This AD applies to Boeing Model 727, 727C, 727–100, 727–100C, 727–200, and 727–200F series airplanes, certificated in any category, as identified in Boeing Service Bulletin 727–55–0089, Revision 1, dated March 2, 2000.

#### Unsafe Condition

(d) This AD results from new reports of cracks, elongated fastener holes, and loose fittings of the elevator rear spar. We are issuing this AD to prevent cracking of the elevator rear spar at the tab hinge locations, which could cause excessive freeplay of the elevator control tab and possible tab flutter, and consequent loss of control of the airplane.

#### Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

#### Requirements of AD 96–06–05

#### Repetitive Inspections and Follow-On Actions

(f) For airplanes on which the modification or repair described in Boeing Service Bulletin 727–55–0085, dated August 31, 1984 (specified as terminating action in AD 84–22–02, amendment 39–4951), has not been accomplished and the repetitive inspections required by AD 84–22–02 have not been initiated: Prior to the accumulation of 8,000 total flight hours since date of manufacture, or within 300 flight hours after April 22, 1996 (the effective date of AD 96–06–05), whichever occurs later, perform a detailed inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with Boeing Service Bulletin 727–55–0089, dated June 29, 1995. Then accomplish the follow-on actions (i.e., repetitive inspections, stop-drilling, modification) in accordance with that service bulletin, at the times specified as follows:

**Note 1:** For the purposes of this AD, a detailed inspection is: ''An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required.''

**Note 2:** AD 84–22–02 pertains to the one-piece elevator rear spar.

(1) Repeat the detailed inspection thereafter at intervals not to exceed 1,600 flight hours.

(2) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (l) of this AD, except as provided by paragraph (o) of this AD, at the times specified in paragraph (l) of this AD.

#### Repetitive Inspections and Follow-On Actions

(g) For airplanes on which the modification or repair described in Boeing Service Bulletin 727–55–0085, dated August 31, 1984 (specified as terminating action in AD 84–22–02), has not been accomplished and the repetitive inspections required by AD 84–22–02 have been initiated: Accomplish either paragraph (g)(1) or (g)(2) of this AD, as applicable.

(1) If no crack has been detected as a result of inspections required by AD 84–22–02: Within 1,600 flight hours after the last inspection required by that AD, perform a detailed inspection to detect cracks and loose brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with the Boeing Service Bulletin 727–55–0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspection, stop-drilling, modification) in accordance with that service bulletin, except as provided by paragraph (o) of this AD, at the times specified as follows:

(i) Repeat the detailed inspection thereafter at intervals not to exceed 1,600 flight hours.

(ii) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (l) of this AD, except as provided by paragraph (o) of this AD, at the times specified in paragraph (l) of this AD.

(2) If any crack has been stop-drilled in accordance with AD 84–22–02, accomplish the requirements of paragraph (l) of this AD, except as provided by paragraph (o) of this AD, at the times specified in paragraph (l) of this AD.

(h) For airplanes on which the modification or repair described in Boeing Service Bulletin 727–55–0085, dated August 31, 1984 (specified as terminating action in AD 84–22–02, amendment 39–4951), has been accomplished: Within 4,000 flight hours after April 22, 1996, perform a detailed inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with Boeing Service Bulletin 727–55–0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspections, stop-drilling, modification) in accordance with that service bulletin, except as provided by paragraph (o) of this AD, at the times specified as follows:

(1) Repeat the detailed inspection thereafter at intervals not to exceed 4,000 flight hours, except as provided by paragraph (n) of this AD.

(2) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (l) of this AD, except as provided by paragraph (o) of this AD, at the times specified in paragraph (l) of this AD.

(i) For airplanes on which the modification or repair described in Boeing Service Bulletin 727–55–087, dated June 20, 1986 (specified as terminating action in AD 87–24–03, amendment 39–5769), has not been accomplished and the repetitive inspections required by AD 87–24–03 have not been initiated: Accomplish the requirements of paragraph (i)(1) of this AD at the earliest of the times specified in paragraph (i)(2) of this AD.

**Note 3:** AD 87–24–03 pertains to the two-piece elevator rear spar.

(1) Perform a detailed inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, at the earliest of the times specified in paragraph (i)(2) of this AD, and in accordance with Boeing Service Bulletin 727–55–0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspection, stop-drilling, modification) in accordance with that service bulletin, at the times specified as follows:

(i) Repeat the detailed inspection thereafter at intervals not to exceed 4,000 flight hours, except as provided by paragraph (n) of this AD.

(ii) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (l) of this AD, except as provided by paragraph (o) of this AD, at the times specified in paragraph (l) of this AD.

(2) Accomplish the initial detailed inspection required by paragraph (i)(1) of this AD at the earliest of the following times:

(i) Prior to the accumulation of 27,000 total flight hours since date of manufacture, or within 4,000 flight hours after December 24, 1987 (the effective date of AD 87–24–03), whichever occurs later; or

(ii) Prior to the accumulation of 12,000 total flight hours since date of manufacture, or within 4,000 flight hours after April 22, 1996, whichever occurs later; or

(iii) Prior to the accumulation of 27,300 total flight hours since date of manufacture, or within 300 flight hours after April 22, 1996, whichever occurs later.

(j) For airplanes on which the modification or repair described in Boeing Service Bulletin 727–55–087, dated June 20, 1986 (specified as terminating action in AD 87–24–03), has not been accomplished and the repetitive inspections required by AD 87–24–03 have been initiated: Accomplish either paragraph (j)(1) or (j)(2) of this AD, as applicable.

(1) If no crack has been detected as a result of inspections required by AD 87–24–03: Within 4,000 flight hours after the last inspection required by that AD, perform a detailed inspection to detect cracks and loose brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with Boeing Service Bulletin 727–55–0089, dated June 29, 1995, except as provided by paragraph (m) of this AD. Accomplish follow-on actions (i.e., repetitive inspection, stop-drilling, modification) in accordance with that service bulletin, except as provided by paragraph (o) of this AD, at the times specified as follows:

(i) Repeat the detailed inspection thereafter at intervals not to exceed 4,000 flight hours, except as provided by paragraph (n) of this AD.

(ii) If any crack is detected and stop-drilled as a result of any inspection required by paragraph (j)(1) of this AD, accomplish the requirements of paragraph (l) of this AD, except as provided by paragraph (o) of this AD, at the times specified in paragraph (l) of this AD.

(2) If any crack has been detected and stop-drilled in accordance with AD 87–24–03, accomplish the requirements of paragraph (l) of this AD, except as provided by paragraph (o) of this AD, at the times specified in paragraph (l) of this AD.

(k) For airplanes on which the modification or repair described in Boeing Service Bulletin 727–55–087, dated June 20, 1986 (specified as terminating action in AD 87–24–03), has been accomplished: Within 4,000 flight hours after April 22, 1996, perform a detailed inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with Boeing Service Bulletin 727–55–0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspection, stop-drilling, modification) in accordance with the service bulletin, except as provided by paragraph (o) of this AD, at the times specified as follows:

(1) Repeat the detailed inspection thereafter at intervals not to exceed 4,000 flight hours, except as provided by paragraph (n) of this AD.

(2) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (l) of this AD, except as provided by paragraph (o) of this AD, at the times specified in that paragraph.

(l) If any crack is detected and stop-drilled in accordance with paragraph (f)(2), (g)(1)(ii), (g)(2), (h)(2), (i)(1)(ii), (j)(1)(ii), (j)(2), or (k)(2) of this AD, accomplish the following, except as provided by paragraphs (o) and (p) of this AD:

(1) Within 1,600 flight hours after stop-drilling, perform a detailed inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, and accomplish follow-on actions (i.e., stop-drilling, modification) in accordance with the service bulletin. If any crack growth is detected after stop-drilling, prior to further flight, modify the elevator rear spar in accordance with Part II of the Accomplishment Instructions of Boeing Service Bulletin 727–55–0089, dated June 29, 1995. Accomplishment of this modification constitutes terminating action for the repetitive inspection requirements of this AD.

(2) Within 3,200 flight hours after stop-drilling, modify the elevator rear spar in accordance with Part II of the Accomplishment Instructions of Boeing Service Bulletin 727–55–0089, dated June 29, 1995. Accomplishment of this modification constitutes terminating action for the repetitive inspection requirements of this AD.

**New Actions Required by This AD**

**New Service Information**

(m) As of the effective date of this AD, use only the Accomplishment Instructions of Boeing Service Bulletin 727–55–0089, Revision 1, dated March 2, 2000, to do the repetitive detailed inspections required by this AD.

**Certain Repetitive Inspections at Reduced Intervals**

(n) For airplanes being inspected at intervals not to exceed 4,000 flight hours in accordance with paragraphs (h)(1), (i)(1)(i), (j)(1)(i), and (k)(1) of this AD: As of the effective date of this AD, do those inspections within 1,600 flight hours since the last detailed inspection or 6 months after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 1,600 flight hours.

**Stop-Drilling Prohibited**

(o) As of the effective date of this AD, stop-drilling required by paragraphs (f) through (l) inclusive of this AD is prohibited.

**Replacement of Cracked Rear Spars/Loose Brackets**

(p) As of the effective date of this AD, if any cracked rear spar or loose bracket is detected during any inspection required by this AD, before further flight, do the replacement specified in paragraph (q) of this AD.

**Terminating Replacement**

(q) Within 18 months after the effective date of this AD, replace the elevator rear spar with a new elevator rear spar and support fittings, in accordance with Part II of the Accomplishment Instructions of Boeing Service Bulletin 727–55–0089, Revision 1, dated March 2, 2000. Accomplishing the replacement constitutes terminating action for the requirements of this AD.

(r) Accomplishing the replacement before the effective date of this AD in accordance with Boeing Service Bulletin 727–55–0089, dated June 29, 1995, is considered acceptable for compliance with the corresponding action specified in paragraph (q) of this AD.

**Alternative Methods of Compliance (AMOCs)**

(s)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved previously in accordance with AD 96–06–05 are approved as AMOCs for the corresponding provisions of this AD.

Issued in Renton, Washington, on November 7, 2007.

**Ali Bahrami,**

*Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. E7–22814 Filed 11–21–07; 8:45 am]

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