

**NORTH ATLANTIC TREATY ORGANIZATION  
ORGANISATION DU TRAITE DE L'ATLANTIQUE NORD**

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AIR BOARD

24 January 2003

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**STANAG 3697 AS (EDITION 5) – AIRFIELD AIRCRAFT ARRESTING SYSTEMS**

References:

- a. MAS(AIR)344-AS/3697 dated 19 October 1995 (Edition 4).
- b. NSA(AIR)1129-AS/3697 dated 27 September 2001 (Edition 4) (Amendment 1) (Ratification Draft 1).

1. The enclosed NATO Standardization Agreement, which has been ratified by nations as reflected in **the NATO Standardization Document Database (NSDD)**, is promulgated herewith.
2. The references listed above are to be destroyed in accordance with local document destruction procedures.
3. APP-4 should be amended to reflect the latest status of the STANAG.

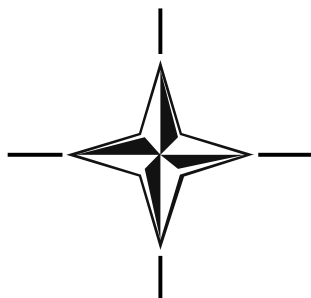
ACTION BY NATIONAL STAFFS

4. National staffs are requested to examine the **NSDD** and, if they have not already done so, advise the Air Board, NSA, through their national delegation as appropriate of their intention regarding its ratification and implementation.

Jan H ERIKSEN  
Rear Admiral, NONA  
Director, NSA

Enclosure:  
STANAG 3697 (Edition 5)

**NORTH ATLANTIC TREATY ORGANIZATION  
(NATO)**



**NATO STANDARDIZATION AGENCY  
(NSA)**

**STANDARDIZATION AGREEMENT  
(STANAG)**

SUBJECT: AIRFIELD AIRCRAFT ARRESTING SYSTEMS

Promulgated on 24 January 2003

Jan H ERIKSEN  
Rear Admiral, NONA  
Director, NSA

NATO/PfP UNCLASSIFIED

RECORD OF AMENDMENTS

No.	Reference/date of amendment	Date entered	Signature

EXPLANATORY NOTES

AGREEMENT

1. This NATO Standardization Agreement (STANAG) is promulgated by the Director NATO Standardization Agency under the authority vested in him by the NATO Standardization Organisation Charter.
2. No departure may be made from the agreement without consultation with the tasking authority. Nations may propose changes at any time to the tasking authority where they will be processed in the same manner as the original agreement.
3. Ratifying nations have agreed that national orders, manuals and instructions implementing this STANAG will include a reference to the STANAG number for purposes of identification.

DEFINITIONS

4. Ratification is "In NATO Standardization, the fulfilment by which a member nation formally accepts, with or without reservation, the content of a Standardization Agreement" (AAP-6).
5. Implementation is "In NATO Standardization, the fulfilment by a member nation of its obligations as specified in a Standardization Agreement" (AAP-6).
6. Reservation is "In NATO Standardization, the stated qualification by a member nation that describes the part of a Standardization Agreement that it will not implement or will implement only with limitations" (AAP-6).

RATIFICATION, IMPLEMENTATION AND RESERVATIONS

7. The NSDD gives the details of ratification and implementation of this agreement. If no details are shown it signifies that the nation has not yet notified the tasking authority of its intentions. Page iv (and subsequent) gives details of reservations and proprietary rights that have been stated.

FEEDBACK

8. Any comments concerning this publication should be directed to NATO/NSA – Bvd Leopold III - 1110 Brussels - BE.

NATO STANDARDIZATION AGREEMENT  
(STANAG)

AIRFIELD AIRCRAFT ARRESTING SYSTEMS

- Annexes:   A.   List of Addresses for the Exchange of Information on Airfield Arresting Systems.  
          B.   Format for Dynamic Performance Parameters.

Related Documents:    STANAG 3316 AS – AIRFIELD LIGHTING  
                          STANAG 3346 AS – MARKING AND LIGHTING OF  
                                          AIRFIELD OBSTRUCTIONS

AIM

1.    The aim of this agreement is to standardize the method of disseminating information on aircraft arresting systems installed at participating nations' airfields and to advise of the technical issues that need to be addressed when providing aircraft arresting systems.

AGREEMENT

2.    Participating nations agree to advise the addressees given in Annex A of the dynamic performance and operating limitations of their airfield aircraft arresting systems in accordance with the format of Annex B.

DETAILS OF THE AGREEMENT

3.    This agreement is applicable to all arresting systems in use in the nations concerned, including those at overseas bases under national control, and to changes as they occur.

4.    It will be a national responsibility to define and promulgate within their own services, arresting system operating limitations for their own specific aircraft types.

5.    Participating nations further agree to continue to publish information in the relevant en-route and flight planning documents that will define:

- a.    Type and nomenclature.
- b.    Location on runway.
- c.    Direction of use.
- d.    Readiness status (e.g. permanently installed, 10 minutes on request etc).

TECHNICAL CONSIDERATIONS

6. Where aircraft arresting cable systems are provided, the provision of airfield lighting within the hook engagement and runway swept areas requires particular care and attention. The provision of inappropriate inset light units within the hook engagement area prior to the cable (or tape) can influence the hook engagement process and may result in a failed aircraft engagement. Furthermore, the light units located within the area of the runway swept by the cable must also be of the inset type if damage to the light units by the cable is to be prevented. Requirements on the provision of inset light units (flush/semi-flush) within these areas detailed within STANAG 3316.

7. Aircraft arresting barrier systems of the "net" type are to be provided with warning lights to advise the pilots of approaching aircraft that the arresting barrier is in the raised position. Requirements for the provision of these warning lights and the marking and lighting of airfield obstructions in general are detailed within STANAG 3346.

IMPLEMENTATION OF THE AGREEMENT

8. This STANAG is implemented when nations have the necessary orders/instructions to the forces concerned, putting the procedures detailed in this agreement into effect.

LIST OF ADDRESSES FOR EXCHANGE OF INFORMATION ON AIRFIELD  
AIRCRAFT ARRESTING SYSTEMS

BE:           Etat-Major de la Force Aérienne  
              Sous-Section Infrastructure (VSP/I)  
              Quartier Reine Elisabeth  
              Rue d'Evere  
              B-1140 BRUXELLES  
              Belgium

CA:           National Defence Headquarters  
              MGen Georges R. Pearkes Bldg  
              Attn: DAS Eng 6-4  
              101 Colonel By Drive  
              OTTAWA K1A OK2  
              Canada

CZ:           TO FOLLOW

DA:           Tactical Air Command  
              Luftoperations Sectionen  
              Koelvraa  
              DK 7470 KARUP J  
              Denmark

FR:           Etat-Major de l'Armée de l'Air  
              Bureau Operations  
              26, Boulevard Victor  
              00460 ARMEES  
              France

GE:           Ministry of Defence  
              MOD Air Force Staff III 4  
              D-53003 BONN  
              Germany

GR:           Hellenic Air Force General Staff  
              Directorate A3/2  
              ATHENS TGA 1010  
              Greece

HU:           TO FOLLOW

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IT: Stato Maggiore Aeronautica  
3° Reparto  
Viale Universita, 4  
00100 ROMA  
Italy

NL: Royal Netherlands Airforce Headquarters  
DOP/Supporting Operations Division  
Postbox 20703  
2500 ES THE HAGUE  
The Netherlands

NO: DEFCOMNOR/Inspectorate of Flying  
Rygge Flystasjon  
N-1590 RYGGE  
Norway

PL: TO FOLLOW

PO: Inspeção Geral da Força Aérea  
Gabinete de Prevenção de Acidentes  
Av. Leite de Vasconcelos  
2700 ALFRAGIDE  
Portugal

SP: Estado Mayor del Aire  
Division de Operaciones/SESPA  
C/Romero Robledo 8  
28008 – MADRID  
Spain

TU: Turkish General Staff  
AND.D.Bsk. MAS S  
ANKARA  
Turkey

UK: Ministry of Defence  
Main Building  
Attn: A Def 2 (Room 4212)  
Whitehall  
LONDON SW1A 2HB  
United Kingdom

US: HQ AFCESA/CESC  
139 Barnes Drive Suite 1  
Tyndall AFB, FL 32403-5319  
USA

FORMAT FOR DYNAMIC PERFORMANCE PARAMETERS

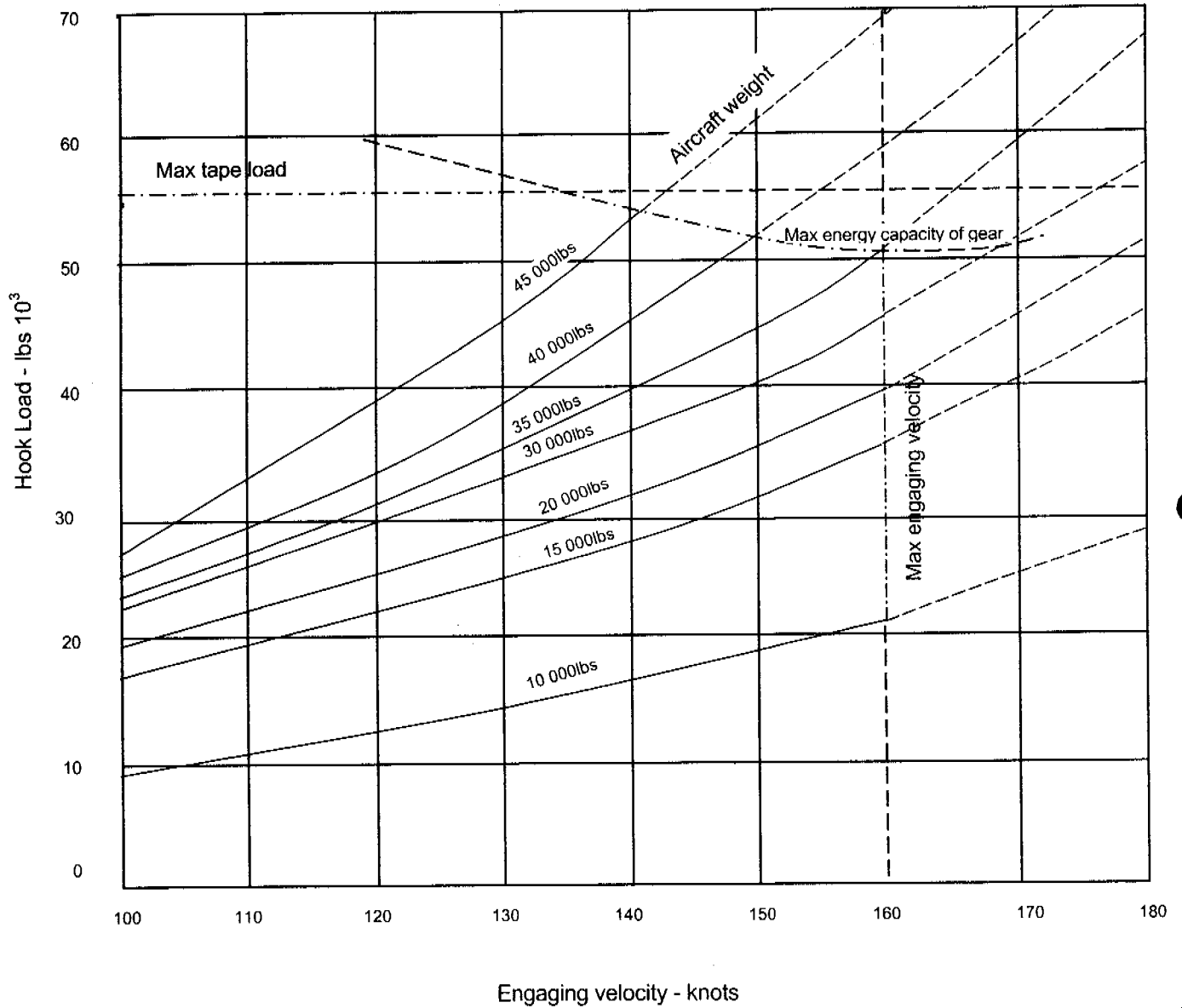
1. Description

- |    |                                                                                                  |            |                                                                     |
|----|--------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------|
| a. | Type:                                                                                            | e.g. Type: | Net barrier or cable uni or bi-directional                          |
| b. | Designation:                                                                                     | e.g.       | (Super) BAK-9                                                       |
| c. | Emergency energy-absorbing capacity:<br>equivalent                                               | e.g.       | 55 x 10 <sup>6</sup> lb ft (or in joules)                           |
| d. | Maximum run-out:                                                                                 | e.g.       | 1,200 ft (or equivalent in metres)                                  |
| e. | Location on airfield/runways:                                                                    | e.g.       | AFB (station)<br>RW 24 Thrhld + 2,000 ft<br>RW 06 Thrhld – 1,000 ft |
| f. | (1) Cable diameter, type and height of support:<br><br>or                                        | e.g.       | 1.25 inches, dough nuts support cable<br>3.0 inches above R/W       |
|    | (2) Net manufacturer and model, height of top of net at R/W centre line, brake pressure setting: | e.g.       | Aerazur GB30, 12.47 ft (3.8 m) 128 psi (9 kgf/cm <sup>2</sup> )     |

2. Dynamic Performance

- a. Hook/Cable Systems. A dynamic performance graph showing the parameters illustrated in Figure B-1. Load measurements should be expressed in lb x 10<sup>3</sup> or newtons. Weight measurements should be expressed in lb or kg/tonnes. Emergency limits for the gear are to be shown.
- b. Net/Barrier Systems. Dynamic performance graphs showing the parameters illustrated in Figure B-2 for each brake pressure setting used. Emergency limits for the gear are to be shown.





HOOK LOAD V ENGAGING VELOCITY FOR VARIOUS AIRCRAFT WEIGHTS

Fig. B-1 with examples of possible gear limitations forming the boundary within which aircraft use is only limited by hook strength.

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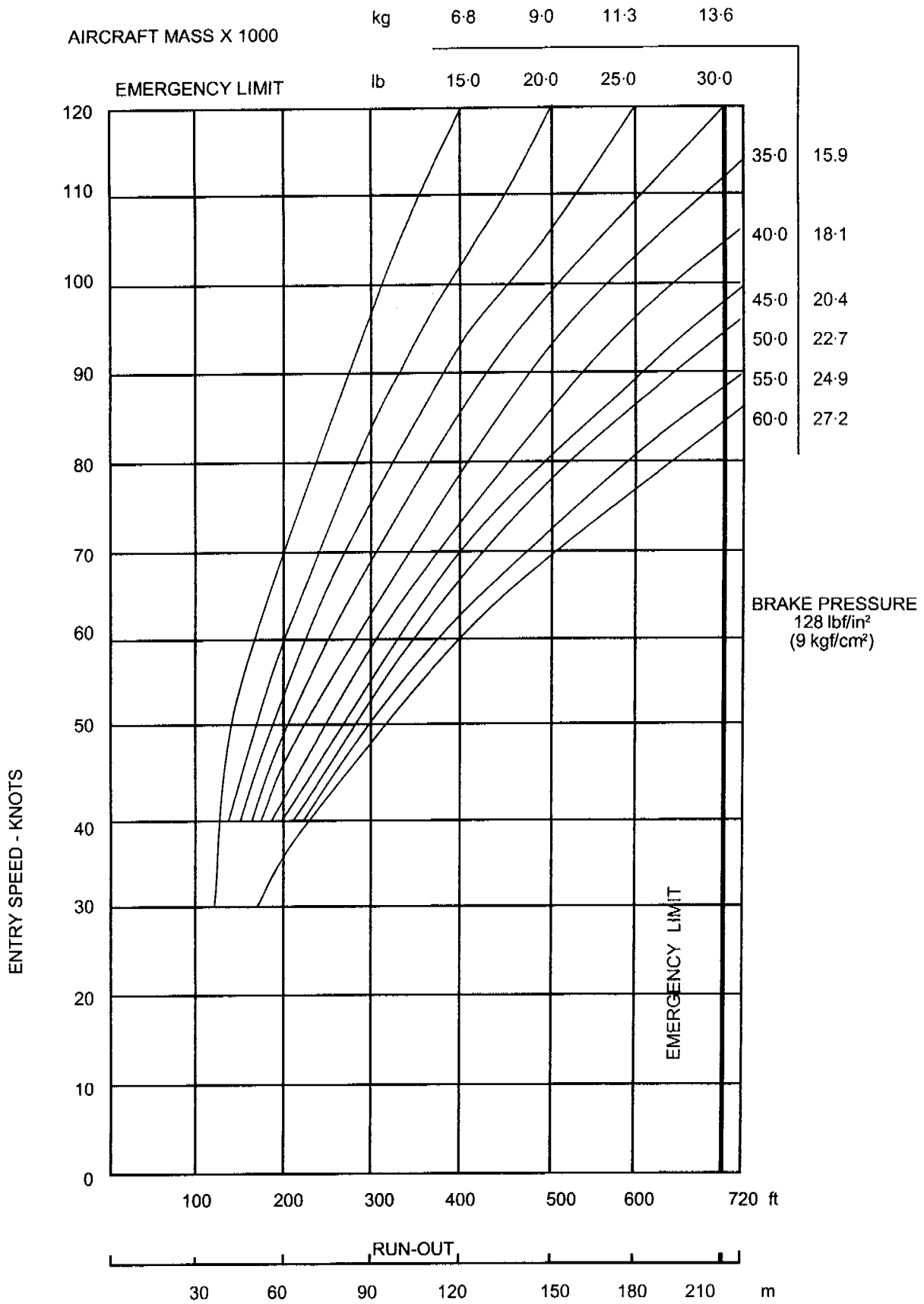


FIGURE B - 2 Barrier performance graph at the 'Heavy Aircraft' brake pressure setting