

**IEEE Standard for  
Information technology—  
Telecommunications and information  
exchange between systems—  
Local and metropolitan area networks**

**Part 5: Token ring access method and  
Physical Layer specifications—  
Corrigendum 1**

Sponsor

**LAN/MAN Standards Committee  
of the  
IEEE Computer Society**

Approved 30 March 2000

**IEEE-SA Standards Board**

**Abstract:** This corrigendum to Local and Metropolitan Area Network standards, IEEE Std 802.5, 1998 Edition and IEEE Std 802.5r and 802.5j, 1998 Edition, is part of a family of local area network (LAN) standards dealing with the physical and data link layers as defined by the ISO/IEC Open Systems Interconnection Basic Reference Model. Errors that have been identified in the two standards are corrected.

**Keywords:** data processing interconnection, dedicated token ring, fibre optic media, full duplex operation, insertion key, local area network (LAN), medium access control (MAC), token ring

---

The Institute of Electrical and Electronics Engineers, Inc.  
3 Park Avenue, New York, NY 10016-5997, USA

Copyright © 2001 by the Institute of Electrical and Electronics Engineers, Inc.  
All rights reserved. Published 30 May 2001. Printed in the United States of America.

*Print:* ISBN 0-7381-2474-5 SH94846  
*PDF:* ISBN 0-7381-2475-3 SS94846

*No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.*

**IEEE Standards** documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information contained in its standards.

Use of an IEEE Standard is wholly voluntary. The IEEE disclaims liability for any personal injury, property or other damage, of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, or reliance upon this, or any other IEEE Standard document.

The IEEE does not warrant or represent the accuracy or content of the material contained herein, and expressly disclaims any express or implied warranty, including any implied warranty of merchantability or fitness for a specific purpose, or that the use of the material contained herein is free from patent infringement. IEEE Standards documents are supplied “**AS IS.**”

The existence of an IEEE Standard does not imply that there are no other ways to produce, test, measure, purchase, market, or provide other goods and services related to the scope of the IEEE Standard. Furthermore, the viewpoint expressed at the time a standard is approved and issued is subject to change brought about through developments in the state of the art and comments received from users of the standard. Every IEEE Standard is subjected to review at least every five years for revision or reaffirmation. When a document is more than five years old and has not been reaffirmed, it is reasonable to conclude that its contents, although still of some value, do not wholly reflect the present state of the art. Users are cautioned to check to determine that they have the latest edition of any IEEE Standard.

In publishing and making this document available, the IEEE is not suggesting or rendering professional or other services for, or on behalf of, any person or entity. Nor is the IEEE undertaking to perform any duty owed by any other person or entity to another. Any person utilizing this, and any other IEEE Standards document, should rely upon the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

**Interpretations:** Occasionally questions may arise regarding the meaning of portions of standards as they relate to specific applications. When the need for interpretations is brought to the attention of IEEE, the Institute will initiate action to prepare appropriate responses. Since IEEE Standards represent a consensus of concerned interests, it is important to ensure that any interpretation has also received the concurrence of a balance of interests. For this reason, IEEE and the members of its societies and Standards Coordinating Committees are not able to provide an instant response to interpretation requests except in those cases where the matter has previously received formal consideration.

Comments for revision of IEEE Standards are welcome from any interested party, regardless of membership affiliation with IEEE. Suggestions for changes in documents should be in the form of a proposed change of text, together with appropriate supporting comments. Comments on standards and requests for interpretations should be addressed to:

Secretary, IEEE-SA Standards Board  
445 Hoes Lane  
P.O. Box 1331  
Piscataway, NJ 08855-1331  
USA

**Note:** Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. The IEEE shall not be responsible for identifying patents for which a license may be required by an IEEE standard or for conducting inquiries into the legal validity or scope of those patents that are brought to its attention.

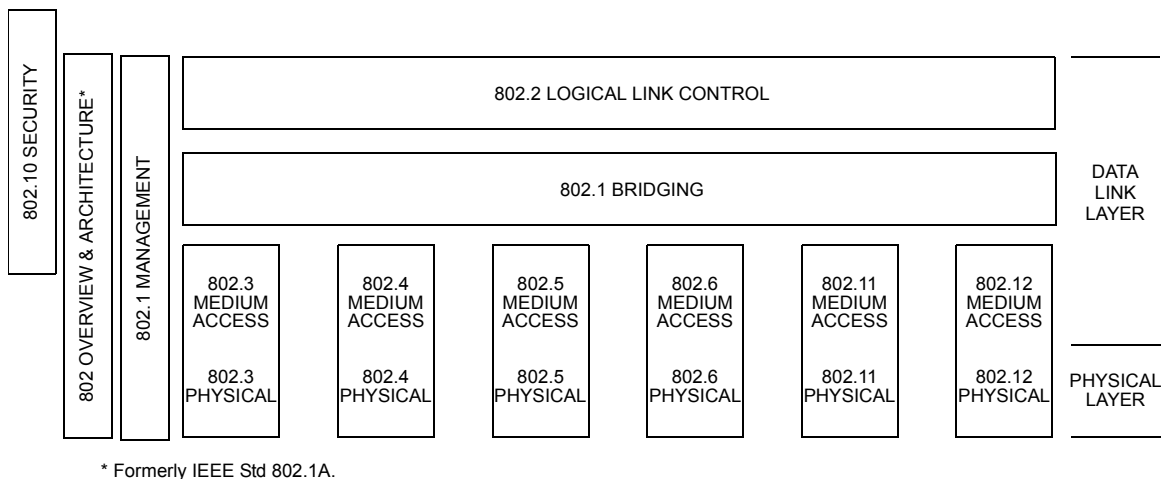
IEEE is the sole entity that may authorize the use of certification marks, trademarks, or other designations to indicate compliance with the materials set forth herein.

Authorization to photocopy portions of any individual standard for internal or personal use is granted by the Institute of Electrical and Electronics Engineers, Inc., provided that the appropriate fee is paid to Copyright Clearance Center. To arrange for payment of licensing fee, please contact Copyright Clearance Center, Customer Service, 222 Rosewood Drive, Danvers, MA 01923 USA; (978) 750-8400. Permission to photocopy portions of any individual standard for educational classroom use can also be obtained through the Copyright Clearance Center.

# Introduction

(This introduction is not a part of IEEE Std 802.5w-2000, IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Part 5: Token ring access method and physical layer specifications—Corrigendum 1.)

This standard is part of a family of standards for local and metropolitan area networks. The relationship between the standard and other members of the family is shown below. (The numbers in the figure refer to IEEE standard numbers.)



This family of standards deals with the Physical and Data Link layers as defined by the International Organization for Standardization (ISO) Open Systems Interconnection (OSI) Basic Reference Model (ISO/IEC 7498-1: 1994). The access standards define seven types of medium access technologies and associated physical media, each appropriate for particular applications or system objectives. Other types are under investigation.

The standards defining the technologies noted above are as follows:

- IEEE Std 802 *Overview and Architecture.* This standard provides an overview to the family of IEEE 802 Standards.
- ANSI/IEEE Std 802.1B and 802.1k [ISO/IEC 15802-2] *LAN/MAN Management.* Defines an OSI management-compatible architecture, and services and protocol elements for use in a LAN/MAN environment for performing remote management.
- ANSI/IEEE Std 802.1D *Media Access Control (MAC) Bridges.* Specifies an architecture and protocol for the interconnection of IEEE 802 LANs below the MAC service boundary.
- ANSI/IEEE Std 802.1E [ISO/IEC 15802-4] *System Load Protocol.* Specifies a set of services and protocol for those aspects of management concerned with the loading of systems on IEEE 802 LANs.
- ANSI/IEEE Std 802.1F *Common Definitions and Procedures for IEEE 802 Management Information.*
- ANSI/IEEE Std 802.1G [ISO/IEC 15802-5] *Remote Media Access Control (MAC) Bridging.* Specifies extensions for the interconnection, using non-LAN communication technologies, of geographically separated IEEE 802 LANs below the level of the logical link control protocol.
- IEEE Std 802.1H [ISO/IEC TR 11802-5] *Media Access Control (MAC) Bridging of Ethernet V2.0 in Local Area Networks.*

- ANSI/IEEE Std 802.2 [ISO/IEC 8802-2] *Logical Link Control.*
- ANSI/IEEE Std 802.3 *CSMA/CD Access Method and Physical Layer Specifications.*
- ANSI/IEEE Std 802.4 [ISO/IEC 8802-4] *Token Passing Bus Access Method and Physical Layer Specifications.*
- ANSI/IEEE Std 802.5 [ISO/IEC 8802-5] *Token Ring Access Method and Physical Layer Specifications.*
- ANSI/IEEE Std 802.6 [ISO/IEC 8802-6] *Distributed Queue Dual Bus Access Method and Physical Layer Specifications.*
- ANSI/IEEE Std 802.10 *Interoperable LAN/MAN Security.*
- ANSI/IEEE Std 802.11 [ISO/IEC DIS 8802-11] *Wireless LAN Medium Access Control (MAC) and Physical Layer Specifications.*
- ANSI/IEEE Std 802.12 [ISO/IEC 8802-12] *Demand Priority Access Method, Physical Layer and Repeater Specifications.*

In addition to the family of standards, the following is a recommended practice for a common Physical Layer technology:

- IEEE Std 802.7 *IEEE Recommended Practice for Broadband Local Area Networks.*

## Conformance test methodology

An additional standard, 1802.3 provides conformance test information for 10BASE-T.

## IEEE Std 802.3, 2000 Edition

This standard contains state-of-the-art material. The area covered by this standard is undergoing evolution. Revisions are anticipated to this standard within the next few years to clarify existing material, to correct possible errors, and to incorporate new related material. Details on the contents of this standard are provided on the following pages.

## Participants

At the time this standard was approved, the following persons were members of the working group:

**Robert D. Love, *Chair***  
**Kenneth T. Wilson, *Editor***  
**Neil Jarvis, *Editor***  
**John L. Messenger, *Vice Chair, Editor-in-Chief***

Brian Buckmeier  
Peggy Jean DiMauro  
Andy Fierman  
Ted Fornoles  
Paul Gessert  
Michael Hanrahan  
Simon J. Harrison  
John Hill  
Bob Hubbard

Ivar Jeppesen  
Richard Knight  
Edgardo Laber  
Moshiko Levhar  
George Lin  
Keith Luke  
Avishay Noam  
Ivan Oakley  
Syoun-Chin Peng

Karl Reinke  
Bob Ross  
Tam Ross  
Carson Stuart  
Bo Thomsen  
Christian Thrysoe  
Scott A. Valcourt  
Dave Wilson  
Ed Wong

The following persons were on the balloting committee:

James T. Carlo  
David E. Carlson  
Thomas J. Dineen  
Sourav K. Dutta  
Philip H. Enslow  
Changxin Fan  
John W. Fendrich  
Michael Hanrahan  
Simon J. Harrison  
Raj Jain  
Neil A. J. Jarvis

Gary C. Kessler  
Randolph S. Little  
Robert D. Love  
Richard McBride  
John L. Messenger  
Bennett Meyer  
David S. Millman  
John E. Montague  
David J. Morris  
Paul Nikolich  
Satoshi Obara  
Charles Oestereich  
Roger Pandanda

Vikram Punj  
Edouard Y. Rocher  
James W. Romlein  
Floyd E. Ross  
Geoffrey O. Thompson  
Mark-Rene Uchida  
Scott A. Valcourt  
John Viaplana  
Paul A. Willis  
Kenneth T. Wilson  
Oren Yuen

When the IEEE-SA Standards Board approved this standard on 30 March 2000, it had the following membership:

**Richard J. Holleman, *Chair***  
**Donald N. Heirman, *Vice Chair***  
**Judith Gorman, *Secretary***

Satish K. Aggarwal  
Dennis Bodson  
Mark D. Bowman  
James T. Carlo  
Gary R. Engmann  
Harold E. Epstein  
Jay Forster\*  
Ruben D. Garzon

James H. Gurney  
Lowell G. Johnson  
Robert J. Kennelly  
E. G. "Al" Kiener  
Joseph L. Koepfinger\*  
L. Bruce McClung  
Daleep C. Mohla  
Robert F. Munzner

Louis-François Pau  
Ronald C. Petersen  
Gerald H. Peterson  
John B. Posey  
Gary S. Robinson  
Akio Tojo  
Hans E. Weinrich  
Donald W. Zipse

\*Member Emeritus

Also included is the following nonvoting IEEE-SA Standards Board liaison:

Robert E. Hebner

Jennifer McClain Longman  
*IEEE Standards Project Editor*

Contents

1. Overview..... 1

1.1 Scope..... 1

1.2 Purpose..... 1

2. References..... 1

3. Changes to ISO/IEC 8802-5:1998 ..... 2

4. Changes to ISO/IEC 8802-5:1998/Amd. 1:1998 ..... 3

Annex A (normative) Protocol Implementation Conformance Statement (PICS) Proforma..... 12

**IEEE Standard for  
Information technology—  
Telecommunications and information  
exchange between systems—  
Local and metropolitan area networks**

# **Part 5: Token ring access method and Physical Layer specifications— Corrigendum 1**

## **1. Overview**

The token ring access method and physical layer specifications are described in ISO/IEC 8802-5:1998. Dedicated token ring operation and the use of fibre optic media are described in ISO/IEC 8802-5:1998/Amd. 1:1998. This corrigenda corrects errors in those standards.

### **1.1 Scope**

Correct errors in 802.5:1998 and its amendments.

### **1.2 Purpose**

Correct errors found in 802.5:1998 and its amendments.

## **2. References**

This corrigenda shall be used in conjunction with the following publications:

ISO/IEC 8802-5:1998, Information Technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements—Part 5: Token ring access method and physical layer specifications.

ISO/IEC 8802-5:1998/Amd.1:1998, Information Technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements—Part 5: Token ring access method and physical layer specifications—Amendment 1: Dedicated token ring operation and fibre optic media.

### 3. Changes to ISO/IEC 8802-5:1998

NOTE—The editing instructions contained in this corrigenda define how to merge the material contained herein into the ISO/IEC 8802-5:1998 standard.

The editing instructions are shown in ***bold italic***. Three editing instructions are used: *change*, *insert*, and *replace*. *Change* is used to make small corrections in existing text or tables. This editing instruction specifies the location and describes what is being changed by using ~~strike-through~~ (to remove old material) and underscore (to add new material). *Insert* adds new material without disturbing the existing material. Use of this change instruction may require that subsequent items be renumbered. If so, renumbering instructions are given in the editing instruction. When modifications are made to paragraphs of existing text, additions are underscored. *Replace* is used to make large changes in existing text, subclauses, tables, or pages by removing existing material and replacing it with new material. When modifications are made to paragraphs of existing text, deletions are shown in ~~strike-through type~~ and additions are underscored. Editorial notes will not be carried over into future editions.

***Change page 37 Table 4-MAC frame transmit definitions for Vector X'20' as follows (change bars, underscore and strikethrough are against ISO/IEC 8802-5:1998):***

|                                     |                                    |         |       |                                                 |                                                                                                               |
|-------------------------------------|------------------------------------|---------|-------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| X'20' **4<br>Request Initialization | X'00'<br>or<br>X'01'<br>**1<br>**6 | FA(RPS) | X'50' | op_tx <del>op_tx</del><br>op_tx<br><u>op_tx</u> | X'02' UNA<br>X'21' Individual Address Count<br>X'22' Product Instance ID<br>X'23' Ring Station Version Number |
|-------------------------------------|------------------------------------|---------|-------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------|

***Insert on page 64 Subclause 4.2.2, second paragraph, two new starting conditions as items e) and f) as follows (change bars and underscore are against ISO/IEC 8802-5:1998):***

- e) FA(monitor) shall be set to 0.
- f) All transmit and receive queues shall be flushed.

***Change page 87, Table 7.2-MAC Transmit Station Operation table, transition REF 043 as follows (change bars, underscore and strikethrough are against ISO/IEC 8802-5:1998):***

|     |                                              |                            |
|-----|----------------------------------------------|----------------------------|
| 043 | <del>FR(P&lt;Sx)</del> <u>FR_AC(P&lt;Sx)</u> | [CLEAR_STACK (optional-i)] |
|-----|----------------------------------------------|----------------------------|

## 4. Changes to ISO/IEC 8802-5:1998/Amd. 1:1998

Note—The editing instructions contained in this corrigenda define how to merge the material contained herein into ISO/IEC 8802-5:1998/Amd.1:1998.

The editing instructions are shown in ***bold italic***. Three editing instructions are used: *change*, *insert*, and *replace*. *Change* is used to make small corrections in existing text or tables. This editing instruction specifies the location and describes what is being changed by using ~~strike-through~~ (to remove old material) and underscore (to add new material). *Insert* adds new material without disturbing the existing material. Use of this change instruction may require that subsequent items be renumbered. If so, renumbering instructions are given in the editing instruction. When modifications are made to paragraphs of existing text, additions are underscored. *Replace* is used to make large changes in existing text, sub-clauses, tables, or pages by removing existing material and replacing it with new material. When modifications are made to paragraphs of existing text, deletions are shown in ~~strike-through type~~ and additions are underscored. Editorial notes will not be carried over into future editions.

***Replace Subclause 1.8 on pages 6 through 11 with the following (change bars and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):***

### 1.8 DTR conformance requirements

The conformance requirements for the dedicated token ring (DTR) entities (Clause 9 through Clause 13 in ISO/IEC 8802-5:1998/Amd.1:1998) are specified by Annex A.

The supplier of a protocol implementation that is claimed to conform to this supplement shall complete a copy of the PICS proforma in Annex A and shall provide the information necessary to identify both the supplier and the implementation.

### Common Conformance Requirements – Station and C-Port

A DTR Station and DTR C-Port implementing the TKP Access Protocol or TXI Access Protocol claiming conformance to this standard shall be as follows:

- 1) Implement the frame format, associated address formats and fields, and MAC frame vectors and subvectors specified as follows:
  - Clause 3 and Clause 10 for the DTR C-Port or Station supporting the 4 Mbit/s or 16 Mbit/s media speeds.
- 2) Support 48 bit addressing and uses either a universally administered individual address or a locally administered individual address as specified in 3.2.4.
- 3) Recognize the first bit of the source address as the indication of the presence of the routing information field in the frame format defined in 3.2.5. Note that the ability to generate or respond to frames with source routing information is optional.
- 4) Exhibit external behavior corresponding to the system timing parameters specified as follows:
  - Clause 3 and Clause 10 for the DTR C-Port or Station supporting the 4 Mbit/s or 16 Mbit/s media speeds, and using the TKP or TXI access protocols.
- 5) Exhibit external behavior corresponding to the policy flags and variables specified as follows:
  - Clause 3 and Clause 10 for the DTR C-Port or Station supporting the 4 Mbit/s or 16 Mbit/s media speeds, and using the TKP or TXI access protocols.
- 6) Implement capabilities corresponding to the error counters specified as follows:
  - Clause 3 and Clause 10 for the DTR C-Port or Station supporting the 4 Mbit/s or 16 Mbit/s media speeds, and using the TKP or TXI access protocols.

- 7) Perform the TKP and TXI Access Protocol functions as follows:
- Dedicated token ring for 4 Mbit/s or 16 Mbit/s using the TKP access protocol operation specified by the Station and Port Operation Tables in 9.3 through 9.6 of ISO/IEC 8802-5:1998/Amd.1:1998.
  - Dedicated token ring for 4 Mbit/s or 16 Mbit/s using the TXI access protocol operation specified by the Station and Port Operation Tables in 9.2 and 9.3 in ISO/IEC 8802-5:1998/Amd.1:1998.

*Insert on page 23 (Subclause 9.1.1.5, fifth paragraph), two new starting conditions after "— Timers are not running (stopped, thus cannot expire)" as follows (change bars and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):*

— FA(monitor) shall be set to 0.

— All transmit and receive queues shall be flushed.

*Insert on page 43 (Subclause 9.2.2.6) the abbreviation FSTAS immediately following "FSSLD" as follows (change bars and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):*

FSTAS = flag, Station transmit abort sequence

*Insert on page 47 as Subclause 9.2.3.2.12 the definition of FSTAS as follows (change bars and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):*

Flag, Station transmit abort sequence (FSTAS).

The flag FSTAS is used to control the counting of abort sequences. When the transmitter detects a correctable error requiring the release of an abort sequence, it sets FSTAS to 1. The Error Handling Station Operation Table detects this condition and sets FSTAS to 0 and takes the appropriate action to increment the counter CSABE.

*Renumber subclauses 9.2.3.2.12 through 9.2.3.2.16 on pages 47 and 48 as subclauses 9.2.3.2.13 through 9.2.3.2.17, respectively.*

*Delete transition 3152 on page 53 as follows (change bars and strikethroughs are against ISO/IEC 8802-5:1998/Amd.1:1998):*

|      |      |                                                                                                                                                                                                                         |                                                                                                                                    |
|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| JD0A | 3152 | <del>FR=PHB(SA&lt;SUA)&amp; JS=SJC</del><br><br><del>&lt;&lt; A TXI access protocol error has been detected by the reception of a TXI Heart Beat or a TKP AMP MAC frame (SA&lt;SUA of the known C-Port). &gt;&gt;</del> | <del>JS=BP; Remove_Station</del><br><br><del>&lt;&lt; Station detects TXI access protocol error after Join Complete &gt;&gt;</del> |
|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|

*Change transitions 3207, 3204, 3212 and 3216 on page 57 as follows (change bars and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):*

|      |      |                                                                                                                                                                                                                                          |                                                                                                                                                                                                   |
|------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TBAA | 3207 | <b>CSBTX&gt;SPV(MAX_TX) &amp; FPASO=0 &amp; FIPTXIS=1 &amp; TS=STXD</b><br><br><< C-Port in Station Emulation Mode has detected maximum frame size has been exceeded. >>                                                                 | [TS=STXN; TX_AB; <del>FSTAS</del> =FSTI=1 (optional-unk)]<br><br><< Terminate the transmission of the frame by transmitting an abort sequence >>                                                  |
| TBAE | 3204 | <b>CSBTX&gt;SPV(MAX_TX) &amp; FPASO=1 &amp; FIPTXIS=1 &amp; TS=STXD</b><br><br><< C-Port in Station Emulation Mode has detected maximum frame size has been exceeded. >>                                                                 | [TS=STXN; <del>FSTAS</del> =FSTI=1; TX_INV_FCS; TX_EFS(I=0; E=1) (optional-unk)]<br><br><< Terminate the transmission of the frame by transmitting an invalid FCS and setting the E bit to one >> |
| TBAF | 3212 | <b>DTU_UNITDATA-STATUS.request(Fail) &amp; FPTX_LTH=0 &amp; FIPTXIS=1 &amp; TS=STXD</b><br><br><< Transmit FSM currently transmitting a frame of unknown length. This is an indication that a cut-through frame is being transmitted. >> | TS=STXN; TX_AB; <del>FSTAS</del> =FSTI=1<br><br><< The cut-through frame has completed with a fail status and the frame is aborted by transmitting an abort sequence. >>                          |
| TBAC | 3216 | <b>PORT_ERR(correctable) &amp; FIPTXIS=1 &amp; TS=STXD</b><br><br><< C-Port could not complete transmission of frame being transmitted—abort frame. >>                                                                                   | TS=STXN; TX_AB; <del>FSTAS</del> =FSTI=1;<br><b>If JS=SDAC then CSTFQ=(CSTFQ-1)</b><br><br><<Transmit abort sequence>>                                                                            |

*Change transition 3206 on page 58 as follows (change bars and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):*

|      |      |                                                                                                                                                               |                                                                                                                          |
|------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| TBAC | 3206 | <b>STATION_ERR(correctable) &amp; FIPTXIS=0 &amp; TS=STXD</b><br><br><< Station could not complete transmission of frame: enter the Transmit Normal state. >> | TS=STXN; TX_AB; <del>FSTAS</del> =FSTI=1;<br><b>If JS=SDAC then CSTFQ=(CSTFQ-1)</b><br><br><< Transmit abort sequence >> |
|------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|

*Change transitions 3409, 3410, 3417 and 3418 on page 60 as follows (change bars, strikethroughs, and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):*

|      |                                                                                                                                                                                   |                                                        |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 3409 | <b>FR_WITH_ERR(E=0)</b> & CSLE<255 & FSJC=1 & FSER=1 & MS=SOPT                                                                                                                    | CSLE=(CSLE+1)                                          |
| 3410 | <b>FR_WITH_ERR(E=0)</b> & FSJC=1 & FSER=0 & MS=SOPT                                                                                                                               | FSER=1; TSER=R; CSLE=(CSLE+1)                          |
| 3417 | <del>PORT_ERR(correctable)</del> <b>FSTAS=1</b> & TS=STXN & <del>FPTXIS=1</del> & <del>TS=STXD</del> & <b>CSABE&lt;255</b> & FSJC=1 & <b>FSER=1</b> & <del>FSER=0</del> & MS=SOPT | <del>FSTAS=0; FSER=1; TSER=R;</del><br>CSABE=(CSABE+1) |
| 3418 | <del>PORT_ERR(correctable)</del> <b>FSTAS=1</b> & TS=STXN & <del>FPTXIS=1</del> & <del>TS=STXD</del> & <b>CSABE&lt;255</b> & FSJC=1 & <b>FSER=0</b> & <del>FSER=1</del> & MS=SOPT | <del>FSTAS=0; FSER=1; TSER=R;</del><br>CSABE=(CSABE+1) |

*Delete transitions 3420 and 3419 on page 60 as follows (change bars and strikethroughs are against ISO/IEC 8802-5:1998/Amd.1:1998):*

|      |                                                                                                                       |                                            |
|------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 3420 | <del>STATION_ERR(correctable)</del> & <del>TS=STXD</del> & <del>FSJC=1</del> & <del>FSER=0</del> & <del>MS=SOPT</del> | <del>FSER=1; TSER=R; CSABE=(CSABE+1)</del> |
|------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|

|      |                                                                                                                                                 |                            |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 3419 | <del>STATION_ERR(correctable)</del> & <del>TS=STXD</del> & <del>CSABE&lt;255</del> & <del>FSJC=1</del> & <del>FSER=1</del> & <del>MS=SOPT</del> | <del>CSABE=(CSABE+1)</del> |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|

*Insert on page 77 (Subclause 9.3.2.4) the abbreviation FPTAS immediately following "FPSLD" as follows (change bars and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):*

**FPTAS = Flag, C-Port transmit abort sequence**

*Insert on page 81 the definition of "Flag, C-Port Transmit Abort Sequence (FPTAS)" prior to the definition of "Flag, C-Port Transmit from Crystal (FPTXC)" as follows, and re-order the definitions alphabetically (change bars and underscores are against ISO/IEC 8802-5:1998/Amd.1:1998):*

**Flag, C-Port Transmit Abort Sequence (FPTAS).** The flag FPTAS is used to control the counting of abort sequences. When the transmitter detects a correctable error requiring the release of an abort sequence, it sets FPTAS to 1. The C-Port Error Handling Station Operation Table detects this condition, sets FPTAS to 0 and takes the appropriate action to increment the counter CPABE.