

United States Of America  
 Department of Transportation - Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SA02203AK

*This Certificate issued to* Chelton Flight Systems, Inc.  
 P.O. Box 1042  
 Boise, ID 83701

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part \* of the \* Regulations.*

*Original Product Type Certificate Number:* \* \* See attached FAA Approved Model List (AML) No. SA02203AK, Revision A, dated December 19, 2003, or later FAA approved revision, for a list of approved airplane models and applicable

*Makes:* \*

*Model:* \*

*Description of Type Design Change:* Installation of FlightLogic Synthetic Vision Electronic Flight Information System (EFIS), in accordance with Chelton Flight Systems, Inc., System Installation Instructions, Document Number 150-045264, Revision J, dated December 15, 2003, or later FAA approved revision.

*Limitations and Conditions:*

1. Compatibility of the design change with previously approved modifications must be determined by the installer.
2. FAA approved Airplane Flight Manual Supplement or Supplemental Airplane Flight Manual, Document Number 150-045262, Revision B, dated December 19, 2003, or later FAA approved revision is a required part of this installation.
3. For Instructions for Continued Airworthiness, refer to Document Number 150-045261, Revision G, dated December 15, 2003, or later FAA approved revision.
4. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* January 11, 2002

*Date reissued:*

*Date of issuance:* March 27, 2003

*Date amended:* December 19, 2003



*By direction of the Administrator*

*Gregory J. Holt*  
 (Signature)

Gregory J. Holt  
 Manager  
 Anchorage Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

Small Airplane Directorate  
Anchorage Aircraft Certification Office  
222 W. 7th Avenue, Unit 14, Room 128  
Anchorage, Alaska 99513-7587

December 19, 2003

Mr. Gordon Pratt  
President  
Chelton Flight Systems, Inc.  
1109 Main St, Suite 560  
Boise, ID 83702

Dear Mr. Pratt:

We have completed our evaluation of your amended Supplemental Type Certificate (STC) Project No. SA0633AK-A, and find that you have satisfactorily demonstrated compliance with the applicable certification regulations. Accordingly, we have enclosed amended STC No. SA02203AK, which approves the installation of FlightLogic Synthetic Vision Electronic Flight Information System (EFIS), in accordance with Chelton Flight Systems, Inc., System Installation Instructions, Document Number 150-045264, Revision J, dated December 15, 2003, on approved airplanes listed on Federal Aviation Administration (FAA) Approved Model List (AML) No. SA02203AK, Revision A, dated December 19, 2003.

We are enclosing FAA approved Airplane Flight Manual (AFM) Supplement Document Number 150-045262, Revision B, dated December 19, 2003, which is a required part of this modification. It should be attached to the FAA approved Airplane Flight Manual and/or to the FAA approved AFM Supplement.

This STC is official FAA approval of your modification part design and installation, and it may be used to authorize identical installations on other airplanes of the same models, subject to the limitations noted on the Certificate. This STC may be transferred or otherwise made available to another party by means of a licensee arrangement in accordance with Title 14 Code of Federal Regulations, Section 21.47 (14 CFR 21.47). You are required to advise this office within 30 days after a transfer or a grant of licensee rights to the STC so that we may take the necessary recording or reissuance action.

As of June 30, 1997, the holder of a STC is required to provide to each customer a document that authorizes that customer to make the modification approved by the STC. This new requirement, which is a part of Public Law 104-264 (the Federal Aviation Authorization Act of 1996), is being implemented by the FAA in accordance with FAA Notice 8110.69 issued June 30, 1997. This written document must contain at least as much information as needed to identify the STC, the customer, and the aircraft serial number(s) being modified. Each permission document must also be duly signed and dated by a legally authorized representative.

The STC has wording in the Limitations section that requires you, as the approval holder, to provide an individual permission document to each of your customers/installers. These customers should also be made aware that they are responsible for maintaining the permission document as part of the aircraft records until such time as the modification is removed or the modified product or appliance is sold or transferred.

As recipient of this certificate, you are required to comply with the failure, malfunction and defect reporting requirements of 14 CFR 21.3. Reports should be communicated initially by telephone to the Manager of the Anchorage Aircraft Certification Office, telephone number (907) 271-2668, within 24 hours after it has been determined that the failure has occurred. In addition, written notification to the Manager, Anchorage Aircraft Certification Office; 222 West 7th Avenue, Unit 14, Room 128, Anchorage, Alaska 99513-7587, is required. FAA Form 8010-4 (Malfunction or Defect Report) or any other appropriate format is acceptable in transmitting the required details. An electronic version of FAA Form 8010-4 is now available at Internet address:

<http://www.faa.gov/certification/aircraft/forms.htm>

Select "8010-4" and click. To use the electronic form, select "Malfunction of Defect Submission Form" after the page opens. When you have completed filling out the form, submit it by using the "Submit Report" button at the top left of the form.

If any changes are made to the FAA approved design data referenced by this certificate, they must be made in accordance with 14 CFR 21.93, 14 CFR 21.95, 14 CFR 21.97, and (if parts are produced under FAA-PMA) 14 CFR 21.303(h)(7). The following procedures meet these regulations:

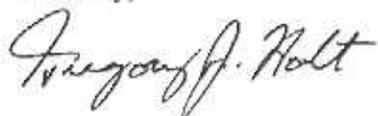
1. *Minor* design changes may be submitted to this office for approval at regular intervals, but must be submitted within six months after you place them into production. Include one copy of each drawing affected by the change(s), a copy of the engineering change order, and any changes to aircraft installation eligibility that result from the design change(s).
2. *Major* design changes must be submitted to this office for approval before you place them into production. Major design changes are changes that are significant enough to require new engineering analysis, new testing, and/or the establishment of one or more new part numbers. Include two copies of each drawing affected by the change(s), a copy of the engineering change order, any changes to aircraft installation eligibility that result from the design change(s), and all data necessary to prove that the changed part continues to meet the applicable airworthiness requirements of Part 6 of the Civil Air Regulations.

All data pertaining to this modification are contained in our Project File No. SA0633AK-A. Reference should be made to this number in any inquiries regarding this project. If you have any further questions regarding the STC or supporting data, please contact Mr. August Asay at (907) 271-2673.

Since I am very much interested in the quality of service we provide to the aviation community and the general public, it would be helpful if you would provide some feedback in the form of your thoughts and comments regarding how the approval process went. To gather this information, we have enclosed a short survey form (with a self-addressed, stamped envelope) that I hope you will fill out and return. Please note that the return envelope is addressed to me personally. Therefore, you may rest assured that your comments will receive my full attention and will, of course, be held in confidence.

Finally, I would like to congratulate you on your success as an FAA approval holder and say that I look forward to working with you in the future.

Sincerely,



Gregory J. Holt, Manager  
Anchorage Aircraft Certification Office

Enclosures

cc: Reading File  
Project File No. SA0633AK-A

FAA APPROVED MODEL LIST (AML) STC SA02203AK  
FOR  
CHELTON FLIGHT SYSTEMS

STC Issue date: March 27, 2003

Revision A, dated December 19, 2003

<u>Model</u>	<u>Type Certificate Number</u>
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Certification Basis

Revo Models COLONIAL C-1, COLONIAL C-2 LAKE LA-4, LAKE LA-4A, LAKE LA-4P, LAKE LA-4-200, LAKE MODEL 250 Certification Basis: CAR 3, FAR Part 23	1A13, Rev. 26, 12/9/02
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Piper Models PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A, PA-18 "125" (Army L-21A) PA-18S "125", PA-18AS "125", PA-18 "135" (Army L-21B) PA-18A "135", PA-18S "135", PA-18AS "135", PA-18 "150" PA-18A "150", PA-18S "150", PA-18AS "150", PA-19 (Army L-18C) PA-19S Certification Basis: CAR 3	1A2, Rev. 37, 9/4/96
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Helio Courier Models H-250, (USAF U-10D) H-295, HT-295, (USAF YL-24) H-391, H-391B, (USAF L-28A or U-10B) H-395, H-395A, H-700, H-800 Certification Basis: CAR 3	1A8, Rev. 33, 9/18/97
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Piper Models PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-181, PA-28-201T, PA-28-235, PA-28-236, PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28S-160, PA-28S-180, PA-28RT-201, PA-28RT-201T Certification Basis: CAR 3	2A13, Rev. 45, 12/12/01
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FAA Approved  
December 19, 2003

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FAA APPROVED MODEL LIST (AML) STC SA02203AK  
FOR  
CIELTON FLIGHT SYSTEMS

STC Issue date: March 27, 2003

Revision A; dated December 19, 2003

<u>Model</u>	<u>Type Certificate Number</u>
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Certification Basis

Mooney Models M20, M20A, M20B, M20C, M20D,  
M20E, M20F, M20G, M20J, M20K, M20L, M20M,  
M20R, M20S

2A3, Rev. 47, 7/31/02

Certification Basis: CAR 3

Cessna Models 172, 172A, 172B, 172C, 172D, 172E,  
172F, 172H, 172I, 172K, 172L, 172M, 172N, 172P,  
172Q, 172R, 172S

3A12, Rev. 68, 10/11/01

Certification Basis: CAR 3, FAR Part 23

Cessna Models 182, 182A, 182B, 182C, 182D,  
182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M  
182N, 182P, 182Q, 182R, 182S, 182T, R182, T182,  
TR182, T182T

3A13, Rev. 62, 9/10/03

Certification Basis: CAR 3, FAR Part 23

Beechcraft Models 35-33, A33, B33, C33, C33, 36, A36,  
A36TC, B36TC, E33, E33A, E33C, F33, F33A, F33C,  
G33, H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B

3A15, Rev. 88, 1/15/00

Certification Basis: CAR 3

Cessna Models 172RG, 175, 175A, 175B, 175C,  
P172D, R172E, R172F, R172G, R172H, R172J, R172K

3A17, Rev. 44, 11/15/97

Certification Basis: CAR 3

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FOR  
CHELTON FLIGHT SYSTEMS

STC Issue date: March 27, 2003

Revision A; dated December 19, 2003

<u>Model</u>	<u>Type Certificate Number</u>
<u>Certification Basis</u>	

Cessna Models 210-5 (205), 210 -5A (205A), 210, 210A 210B, 210C, 210D, 210E, 210F, 210G, 210H, 210J, 210K, 210L, 210M, 210N, 210R, P210N, P210R, T210F, T210G, T210H, T210J, T210K, T210L, T210M, T210N, T210R Certification Basis: CAR 3	3A21, Rev. 45, 8/15/96
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Cessna Models 185, 185A, 185B, 185C, 185D, 185E, A185E, A185F Certification Basis: CAR 3	3A24, Rev. 36, 11/15/99
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Cessna Models 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K Certification Basis: CAR 3	5A6, Rev. 65, 7/16/02
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Cessna 207, 207A, T207, T207A Certification Basis: FAR Part 23	A16CE, Rev. 20, 10/15/94
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American Champion Models 8GCBC, 8KCAB Certification Basis: FAR Part 23	A21CE, Rev. 11, 8/25/97
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Aviat Models A-1, A-1A, A-1B Certification Basis: FAR Part 23	A22NM, Rev. 13, 8/18/03
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FOR  
CHELTON FLIGHT SYSTEMS

STC Issue date: March 27, 2003

Revision A; dated December 19, 2003

<u>Model</u>	<u>Type Certificate Number</u>
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<u>Certification Basis</u>	
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Piper Models PA-32-260, PA-32-300, PA-32-301, PA-32-301T, PA-32R-300, PA-32R-301, PA-32R-301T, PA-32RT-300, PA-32-300T, PA-32S-300 Certification Basis: CAR 3	A3SO, Rev. 26, 7/23/97
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Cessna Models 206, 206H, P206, P206A, P206B, P206C, P206D, P206E, P206H, TP206A, TP206B, TP206C, TP206D, TP206E, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, TU206G, U206, U206A, U206B, U206C, U206D, U206, U206E, U206F, U206G Certification Basis: CAR 3, FAR Part 23	A4CE, Rev. 40, 6/19/02
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Socata Models TB 9, TB 10, TB 21, TB 20, TB 200 Certification Basis: CAR 3, FAR Part 23	A51EU, Rev. 14, 4/6/01
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Piper Models PA-12, PA-12S Certification Basis: CAR 3	A-780, Rev. 13, 3/30/01
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Piper Models PA-46-310P, PA-46-350P, PA-46-500TP Certification Basis: FAR Part 23	A25SO, Rev. 11, 1/21/03
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Beechcraft Models 58P, 58PA, 58TC, 58TCA Certification Basis: FAR Part 23	A23CE, Rev. 80, 1/15/00
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CHELTON FLIGHT SYSTEMS

STC Issuc date: March 27, 2003

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Certification Basis

de Havilland Models DHC-2 Mk. I, DHC-2 Mk. II, DHC-2 Mk. III	A-806, Rev. 21, 1/21/94
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Certification Basis: CAR 3

Cessna Models 310, 310A (USAF U-3A), 310B, 310C, 310D, 310E(USAF U-3B), 310F, 310G, 310H, E310H, 310I, 310J, 310J-1, E310J, 310K, 310L, 310N, 310P, T310P, 310Q, T310Q, 310R, T310R	3A10, Rev. 61, 11/15/97
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Certification Basis: CAR 3

Beechcraft Models 56TC, 58, 58A, 95, 95-55, 95-A55, 95-B55, 95-B55A, 95-B55B, 95-C55, 95-C55A, A56TC, B95, B95A, D55, D55A, D95A, E55, E55A, E95	3A16, Rev. 80, 1/15/00
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Certification Basis: CAR 3, FAR Part 23

Cessna Models 320, 320-1, 320A, 320B, 320C, 320D 320E, 320F, 335, 340, 340A	3A25, Rev. 25, 8/15/94
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Certification Basis: CAR 3

Piper Models PA-34-200, PA-34-200T, PA-34-220T	A750, Rev. 14, 6/1/01
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Certification Basis: CAR 3

FAA APPROVED MODEL LIST (AML) STC SA02203AK  
FOR  
CHELTON FLIGHT SYSTEMS

STC Amendment Issue date: December 19, 2003

<u>Model</u>	<u>Type Certificate Number</u>
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Certification Basis

Commander Models 560-F, 680, 680E, 680F, 680FL, 680FL(P), 680T, 680V, 680W, 681, 685, 690, 690A, 690B, 690C, 690D, 695, 695A, 695B, 720 Certification Basis: CAR 3, FAR Part 23	2A4, Rev. 46 04/03/2000
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Beechcraft Models 65, 65-A90-1, A65, 65-A90-2 A65-8200, 65-A90-3, 65-80 65-A90-4, 65-A80, 65-A80-8800, 65-B80, 65-88, 65-90, 65-A90, 70, B90, C90, C90A, E90, H90 Certification Basis: CAR 3	3A20, Rev. 60, 9/10/01
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Commander Models 500, 500-A, 500-B, 500-U, 520, 560 560-A, 560-E, 500-S Certification Basis: CAR 3	6A1, Rev. 45, 1/1/90
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Piper Models PA-31, PA-31-300, PA-31-325, PA31-350 Certification Basis: CAR 3	A20SO, Rev.9, 3/19/01
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Mitsubishi Models MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B-36A, MU-2B-40 MU-2B-60 Certification Basis: CAR 3	A10SW, Rev. 14, 8/25/03
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Commander Model 700 Certification Basis: CAR 3, FAR Part 23	A12SW, Rev. 10, 1/1/90
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## FAA APPROVED MODEL LIST (AML) STC SA02203AK

FOR  
CHELTON FLIGHT SYSTEMS

STC Issue date: March 27, 2003

Revision A; dated December 19, 2003

<u>Model</u>	<u>Type Certificate Number</u>
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Certification Basis

Beechcraft Models 99, 99A, 99A (FACH), C99, 100, A99, A100 (U-21F), A99A, A100A, A100C, B99, B100 Certification Basis: FAR Part 23	A14CE, Rev. 35, 5/18/00
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Aerostar Models PA-60-600, PA-60-601, PA-60-601P, PA-60-602P, PA-60-700P Certification Basis: FAR Part 23	A17WE, Rev. 22, 11/2/95
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Piper Models PA-42, PA-42-1000, PA-42-720 Certification Basis: FAR Part 23	A23SO, Rev. 15, 4/15/03
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Beechcraft Models 200, 200C, 200CT, 200T, B200, B200C, B200CT, B200T, 300, 300LW, B300, B300C, A100-1 (U-21J), A200 (C-12A), A200 (C-12C), A200C (UC-12B), A200CT (C-12D), A200CT (FWC-12D), A200CT (RC-12D), A200CT (C-12F), A200CT (RC-12G), A200CT (RC-12H), A200CT (RC-12K), A200CT (RC-12P), A200CT (RC-12Q), B200C (C-12F), B200C (UC-12F), B200C (C-12R), B200C (UC-12M) Certification Basis: FAR Part 23	A24CE, Rev. 84, 7/1/03
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Cessna Model 441 Certification Basis: FAR Part 23	A28CE, Rev. 11, 11/15/97
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FAA APPROVED MODEL LIST (AML) STC SA02203AK  
FOR  
CHELTON FLIGHT SYSTEMS

STC Issue date: March 27, 2003

Revision A; dated December 19, 2003

<u>Model</u>	<u>Type Certificate Number</u>
<u>Certification Basis</u>	
Mitsubishi Models MU-2B, MU-2B-10, MU-2B-15, MU-2B-20, MU-2B-25, MU-2B-26, MU-2B-30, MU-2B-35, MU-2B-36 Certification Basis: CAR 3, CAR 10	A2PC, Rev. 16, 6/30/75
Cessna Models 208, 208A, 208B Certification Basis: FAR Part 23	A37CE, Rev. 12, 6/15/99
Piaggio Model P-180 Certification Basis: FAR Part 23	A59EU, Rev. 10, 5/14/03
Socata Model TBM-700 Certification Basis: FAR Part 23	A60EU, Rev. 10, 3/7/03
Pilatus Models PC-12, PC-12/45 Certification Basis: FAR Part 23 NOTE: PILATUS MODELS PC-12 AND PC-12/45 ARE APPROVED FOR SINGLE MFD SCREEN INSTALLATION ONLY	A78EU, Rev. 9, 12/17/01
Cessna Models 401, 401A, 401B, 402, 402A, 402B, 402C 411, 411A, 414, 414A, 421, 421A, 421B, 421C, 425 Certification Basis: CAR 3	A7CE, Rev. 45, 7/12/02
de Havilland Model DHC-3 Certification Basis: CAR 3	A-815, Rev. 4, 6/26/98
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FAA APPROVED MODEL LIST (AML) STC SA02203AK  
FOR  
CHELTON FLIGHT SYSTEMS

STC Issue date: March 27, 2003

Revision A; dated December 19, 2003

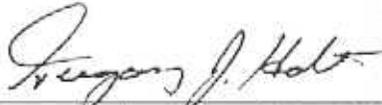
Model Type Certificate Number

Certification Basis

de Havilland Model DHC-3

A-815, Rev. 4, 6/26/98

Certification Basis: CAR 3

FAA APPROVED:   
Manager, Anchorage Aircraft Certification Office  
Federal Aviation Administration  
Anchorage, Alaska

Date: December 19, 2003