US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved OMB No. 2120-0020 2/28/2011

Electronic Tracking Number **2013000542**

For FAA Use Only

Electronically Submitted 337

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark N 4293X	Serial No. 34-8333043	
	Make PIPER	Model PA-34-220T	Series
2. Owner	Name *(As shown on registration certificate)* LAKES AVIATION LLC DBA,WINGS FLIGHT TRAINING	Address *(As shown on registration certificate)* Address 42706 COUNTY HIGHWAY 80 City PERHAM State MN Zip 565738968 Country UNITED STATES	

3. For FAA Use Only

Inspector Signature

Designee Signature

Authorization Number

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME	—	*(As described in Item 1 above)*	—
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	
Name Park Rapids Avionics Inc	☐ U. S. Certificated Mechanic	☐ Manufacturer
Address 301 Airport Road	☐ Foreign Certificated Mechanic	C. Certificate No.
City Park Rapids State MN	☒ Certificated Repair Station	K15R981Y
Zip 56470 Country UNITED STATES	☐ Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B ☐

Signature/Date of Authorized Individual

Thomas J Hass

Digitally signed by Thomas J Hass
DN: c=US, st=MN, l=Park Rapids, o=Industry, ou=Industry, 0.9.2342.19200300.100.1.1=18533, cn=Thomas J Hass, email=tom@parkrapidsavionics.com
Date: 2013.07.23 08:20:18 -05'00'

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY								
		FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
		FAA Designee	☒	Repair Station		Inspection Authorization		Other *(Specify)*

Certificate or Designation No.
K15R981Y

Signature/Date of Authorized Individual

Thomas J Hass

Digitally signed by Thomas J Hass
DN: c=US, st=MN, l=Park Rapids, o=Industry, ou=Industry, 0.9.2342.19200300.100.1.1=18533, cn=Thomas J Hass, email=tom@parkrapidsavionics.com
Date: 2013.07.23 08:23:35 -05'00'

Submit

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

N4293X	07/23/2013
Nationality and Registration Mark	Date

Removed the following equipment:
a. Bendix/King KNS-80 Nav/Rnav
b. Bendix/King KY-197 Com
c. Bendix/King KLN-89B GPS
d. Bendix/King KA-92 GPS
e. Mid Cont MD 41 ACU

Installed the following equipment:
a. Garmin GNS-530W Nav/Com/GPS p/n 011-01064-40
b. Garmin GA 35 GPS antenna p/n 013-00235-00
c. Garmin GDL-88 ADSB datalink transceiver p/n 011-02369-00
d. DAC GDC-31 GPSS computer p/n 1049-4000-03

Installed GNS-530W Nav/Com/GPS and GA-35 GPS antenna in accordance with manufactures installation manuals Garmin p/n 190-00357-02 Rev H and STC SA01933LA-D.

Installed Garmin GDL 88 ADSB datalink transceiver in accordance with manufactures installation manual p/n 190-01310-10 Rev 1. and STC# SA02119SE.

Installed DAC GDC-31 GPSS system in accordance with manufactures installation manual DAC p/n 1049-2510-01 Rev P. and STC # SA10236SC.

Installed equipment in accordance with AC 43.13-2B chapters 3,11, 2, sections 201,202,203,204,205,206, 207, 208,209, and 210, and reference to AC 43.13-1B chapters 4,7,11 and 12.

The continuous electrical load does not exceed 80% of the total alternators capacity.

All equipment was functional tested per manufactures installation manuals and interference tested with existing systems.

A copy of the GNS-530W FAA approved flight manual supplement Garmin p/n 190-00357-03 Rev. C has been added to the FAA approved flight manual.

A copy of the GDL 88 FAA approved flight manual supplement Garmin p/n 190-01310-02 Rev. 1 has been added to the FAA approved flight manual.

A copy of the GDC 31 FAA approved flight manual supplement DAC p/n 1049-2100-02 rev. A has been added to the FAA approved flight manual.

Computed new weight and balance and updated equipment list.

ICAs see , Garmin Document p/n 190-00357-65 Rev. C, p/n 190-01310-01 Rev. 1, DAC Document # 1049-2170-02 Rev B

☒ Additional Sheets Are Attached

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

N4293X	07/23/2013
Nationality and Registration Mark	Date

☐ Additional Sheets Are Attached

OCT 1 5 1996 OCT 2 1 1996

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
Budget Bureau No. 04-R060.1

FOR FAA USE ONLY

OFFICE IDENTIFICATION
FAR-FSDO-GL 21

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

1. AIRCRAFT	MAKE: Piper	MODEL: PA-34-220T
	SERIAL NO.: 34-8333043	NATIONALITY AND REGISTRATION MARK: N4293X
2. OWNER	NAME (*As shown on registration certificate*): Rapat Corporation	ADDRESS (*As shown on registration certificate*): Hawley, MN 56549

3. FOR FAA USE ONLY

The ~~alteration~~/data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft subject to conformity inspection by a person authorized in FAR 43, section 43.7.

10/16/96 — Date

GL-FSDO-21

4. UNIT IDENTIFICATION / **5. TYPE**

UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	(As described in item 1 above)				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE / MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Way-Point Avionics, Inc. 2301 University Drive #38 Bismarck, ND 58504	[ ] U.S. CERTIFICATED MECHANIC [ ] FOREIGN CERTIFICATED MECHANIC [X] CERTIFICATED REPAIR STATION [ ] MANUFACTURER	PS5R130N

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE	SIGNATURE OF AUTHORIZED INDIVIDUAL
10-17-96	Mike Holman

7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is [X] APPROVED [ ] REJECTED

BY						OTHER (*Specify*)
	[ ]	FAA FLT. STANDARDS INSPECTOR	[ ]	MANUFACTURER	[ ] INSPECTION AUTHORIZATION	
	[ ]	FAA DESIGNEE	[X]	REPAIR STATION	[ ] CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL
10-17-96	PS5R130N	Mike Holman

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED *(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

1) Removed Apollo 618 loran with bottom mount antenna.
2) Installed KLN89B GPS (TSO C129 A1) in panel, KA92 GPS ant (TSO C129) on top fuselage and MD41-524 annunciator control unit (TSO C129) with existing HSI and wired to existing encoder. Also wired to KMA24 audio panel for optional altitude alert.
3) Installation done per mfg installation manuals (KLN89B) PN 006-10522-0001 Rev 1 dated June 1995 and (MD41) PN 7016298 Rev 1 dated Jan '96, AC43.13-2A, ch 2, par 21,22,23, ch 3 par 39(b) and AC20-138.
4) KLN89B requires cooling. Used existing cooling fan for cooling.
5) Tested integrated system OK per FAR 43 App E.
6) CW FAR 23.1301.
7) This is a follow on to STC SA00244WI-D.
8) Weight & balance amended, logbook entry made, operators handbook provided and approved flight manual supplement provided.
9) Test flight evaluation dated 10-17-96 found KLN89B to meet accuracy requirements of AC20-138 for IFR enroute, ~~terminal~~ and non precision approach. Repair Station Inspector Dave Mohn, pilot [signature] certificate # 1967251. Having met the requirements of AC20-138, the KLN89B in this aircraft is certified for IFR enroute, terminal and non precision approach (except localizer). Approval basis in accordance with AC20-138 is for supplemental navigation.

********** END **********

☒ ADDITIONAL SHEETS ARE ATTACHED

☆U.S. GOVERNMENT PRINTING OFFICE: 1986-659-121/40260

GPS FOR NON PRECISION APPROACH

THE FOLLOWING APPROACHES WERE ACCOMPLISHED IN N 4293X
ON THIS **DATE** 10-17-96 AND THE GPS DIRECTED THE COURSE WITHIN
THE MISSED APPROACH LIMITS AS PERSCRIBED IN AIM.
THE LIMITS ARE AS LISTED

VOR: FULL SCALE DEFLECTION
DME ARC: PLUS OR MINUS 1.0 NM
NDB: LESS THAN 10 DEGREES OF BEARING

APPROACH 1 VOR A WITH THE FOLLOWING WAY-POINTS
BIS j BIS F MA271 _____ _____ PASS X FAIL____

APPROACH 2 NDB31 WITH THE FOLLOWING WAY-POINTS
BI i BI F RW31 _____ _____ PASS X FAIL____

APPROACH 3 VOR A WITH THE FOLLOWING WAY-POINTS
BIS i BIS F MA271 _____ _____ PASS X FAIL____

ALSO THE ENROUTE TERMINAL DATA SHEET SHALL BE WITHIN .25 NM

_____ INSPECTOR
WAY-POINT AVIONICS, INC.
CRS PS5R130N

APPFLTSH.WPS

ENROUTE AND TERMINAL DATA SHT

GROUND CHECKOUT WP

reference only

BRG	DIST	WP
111°	.6	KBIS
96°	4.0	BIS

AIRCRAFT N# N 4293X

FLIGHT DATA DIRECT TO Y19 MANDAN ND

XTK .01 ATK .01 Y19 *Error in NM*

PILOTS GUIDE ____

Y19 DIRECT TO 08D STANELY ND
TEST AUTOPILOT PERFORMANCE HERE

CDI SENS	1 NM	1/2 NM	1/4 NM	1/8 NM	*defl sens per dot*
DIRECTION	Yes	Yes	Yes	Yes	
INTERCEPT	Yes	Yes	Yes	Yes	
TRACK	Yes	Yes	Yes	Yes	*pass/fail*

PANEL PLACARDS
None Required

No loss of receiver lock

30 DEGREE BANK RIGHT Yes
0NE MIN TURN LEFT Yes

DIRECT BIS VOR *Error in NM*

1RST XTK .01 ATK .01 BIS
2ND XTK .01 ATK .01 BIS

DIRECT KBIS *Error in NM*

XTK .01 ATK .01 KBIS

ANNUNCIATOR TEST *Basic function and readability*

DIMMER	X
MESSAGE	X
WARNING	X
WAYPOINT ALERT	X
INTEGRINY WARN	

ILS DISABLE Pass *indicator reverts to ILS when ILS is tuned pass/fail*

COM INTERFERANCE TEST

	COM 1	COM 2
121.150MHZ	Pass	Pass
121.175MHZ	Pass	Pass
121.200MHZ	Pass	Pass
131.250MHZ	Pass	Pass
131.275MHZ	Pass	Pass
131.300MHZ	Pass	Pass

DIRECT KBIS *AT OR BELOW 100 FEET AGL*

DATA			*Error in NM*
RNWY 13 LAT	46 47.04	LON 100 45.70	0.00
ARP LAT	46 46.50	LON 100 44.86	.06
RNWY 31 LAT	46 45.90	LON 100 44.30	.07

DIRECT COLIJ *Error in NM*

1RST ATK .01 XTK .01 BI
2ND ATK .01 XTK .01 BI

HSI SWITCH ANNUN Pass

DATA BASE DATE 11-6-96

DIRECT KBIS *AT OR BELOW 100 FEET AGL*

DATA			*Error in NM*
RNWY 31 LAT	46 45.91	LON 100 44.31	.06
RNWY 13 LAT	46 47.02	LON 100 45.72	.022

DATA BASE COVERAGE
Americas

WAY-POINT AVIONICS INC
CRS PS5R130N

INSPECTOR

10-17-96
FLIGHT TEST DATE

GROUND CHECK

reference only

BRG	DIST	
111°	.6	KBIS
96°	4.0	BIS

FLIGHT TECHNICAL ERROR (FTE)
FTE SHALL NOT EXCEED 1.0 NMI FOR IFR ENROUTE AND TERMINAL
AND 0.25 NMI FOR APPROACH ON A 95% BASIS

JUN 28 1996

MAY 23 1996

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
Budget Bureau No. 04-R060.1

FOR FAA USE ONLY

OFFICE IDENTIFICATION
GL21

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

1. AIRCRAFT	MAKE: Piper	MODEL: PA-34-220T
	SERIAL NO.: 34-8333043	NATIONALITY AND REGISTRATION MARK: N4293X
2. OWNER	NAME (As shown on registration certificate): Rapat Corporation	ADDRESS (As shown on registration certificate): Hawley, MN 56549

3. FOR FAA USE ONLY

The alteration/data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft subject to conformity inspection by a person authorized in FAR 43, section 43.7.

06/06/96 — Date — GL-FSDO 21

4. UNIT IDENTIFICATION / 5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆ (As described in item 1 above) ◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE / MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Way-Point Avionics, Inc. 2301 University Drive #38 Bismarck, ND 58504	[ ] U.S. CERTIFICATED MECHANIC [ ] FOREIGN CERTIFICATED MECHANIC [X] CERTIFICATED REPAIR STATION [ ] MANUFACTURER	PS5R130N

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE	SIGNATURE OF AUTHORIZED INDIVIDUAL
June 26, 1996	

7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is [X] APPROVED [ ] REJECTED

BY							OTHER (Specify)
	[ ]	FAA FLT. STANDARDS INSPECTOR	[ ]	MANUFACTURER	[ ]	INSPECTION AUTHORIZATION	
	[ ]	FAA DESIGNEE	[ ]	REPAIR STATION	[ ]	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL
JUN 26, 1996		

FAA Form 337 (7-67) (8320)

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED *(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

Inspected Stormscope WX10A system installation. Confirmed that it was installed in accordance with mfg installation manual PN 78-8041-7921-2 Rev. C June 1984. Indicator mounted in pilots left side instrument panel in blank instrument hole per AC43.13-2A ch 2 par 23. Processor mounted on aft avionics shelf per AC43.13-2A ch 2 par 24. Antenna mounted at station 252 using provided doubler and referencing AC43.13-2A ch 3 par 43. Tested system for noise. Tested OK. System tested with Stormscope WX-PA - bearings and distance tested OK. Noted pilots operation guide in A/C. Also noted weight and balance and equipment list updated. Reviewed for accuracy - checked OK.

********** END **********

☐ ADDITIONAL SHEETS ARE ATTACHED

☆U.S. GOVERNMENT PRINTING OFFICE: 1986-659-121/40260

FAA AIRCRAFT REGISTRY
CAMERA NO. 1 DATE: 1-25-94

US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only
Office Identification: GL-21

INSTRUCTIONS. Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed $1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make: Piper	Model: PA34-220T
	Serial No.: 34-8333043	Nationality and Registration Mark: 4293X
2. Owner	Name *(As shown on registration certificate)*: Rapat Corporation	Address *(As shown on registration certificate)*: Hawley, MN 56549

3. For FAA Use Only

4. Unit Identification / **5. Type**

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	*(As described in Item 1 above)*			X	
POWERPLANT			RECEIVED		
PROPELLER			NOV 22 1993		
APPLIANCE	Type / Manufacturer		FAR FSDO		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
Brent Meester AIC Maintenance Inc. PO Box 553 Casselton, ND 58012	X U.S. Certificated Mechanic Foreign Certificated Mechanic Certificated Repair Station Manufacturer	A&P479889086

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date	Signature of Authorized Individual
October 7, 1993	Brent Meester

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ APPROVED ☐ REJECTED

BY						
	FAA Flt. Standards Inspector		Manufacturer	X	Inspection Authorization	Other *(Specify)*
	FAA Designee		Repair Station		Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection	Certificate or Designation No.	Signature of Authorized Individual
Oct 7, 1993	526721238	Richard Sellen

FAA Form 337 (12-88)

FAA AIRCRAFT REGISTRY
CAMERA NO. 1 DATE: 1-25-94

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Repaired right wing by replacing the following:
1 each 95619-02 Rib, 95619-03 Rib, 37741-02 Channel, 37766-03 skin, 37173-01 angle.
Repaired in accordance with Piper PA-34 Service Manual and EA-AC43,13-1A section 3 paragraph 99 subparagraph C & D. Rivet size and placement is same as original. Painted to match with Imron paint. No weight change.
----------end----------

☐ Additional Sheets Are Attached

☆U.S.G.P.O. 1990-761-753

FAA AIRCRAFT REGISTRY
CAMERA NO. IN DATE: 8-29-89

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
Budget Bureau No. 04-R060.1

FOR FAA USE ONLY
OFFICE IDENTIFICATION
MSP GADO

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

1. AIRCRAFT	MAKE: Piper	MODEL: PA34-220T
	SERIAL NO.: 34-8333043	NATIONALITY AND REGISTRATION MARK: N4293X
2. OWNER	NAME (As shown on registration certificate): The Rapat Corp	ADDRESS (As shown on registration certificate): Hawley Industrial Park, Hawley, MN. 56549

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION / 5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	(As described in item 1 above)				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE / MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Crystal Shamrock, Inc. 6000 Douglas Drive North Minneapolis, MN. 55429	U.S. CERTIFICATED MECHANIC FOREIGN CERTIFICATED MECHANIC X CERTIFICATED REPAIR STATION MANUFACTURER	CRS 3409

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE	SIGNATURE OF AUTHORIZED INDIVIDUAL
6/14/89	Michael L. Anderson

7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is [X] APPROVED [ ] REJECTED

BY							
		FAA FLT. STANDARDS INSPECTOR		MANUFACTURER		INSPECTION AUTHORIZATION	OTHER (Specify)
		FAA DESIGNEE	X	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL
6/14/89	CRS 3409	Michael L. Anderson

FAA Form 337 (7-67) (8320)

FAA AIRCRAFT REGISTRY
CAMERA NO. 1N DATE: 8-29-89

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED *(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

Installed a Telex PC-4 Intercom system. The panel unit is mounted at the top of the left side radio stack above the KMA 24 audio panel. Wired in Mic and phone jacks for left and right front seats. Passenger mic and phone jacks are installed in overhead air vent housing between rear seats. Wired in existing push to talk switch in left side yoke and installed push to talk switch in right side yoke. Installation completed using manufacturers instructions and following AC43.13 1 A Chapter 11 sections 2, 3, 5, and 7 and 2A chapters 2 and 3. Weight and Balance change is negligible. Equipment list updated. THE END. NOTHING FOLLOWS.
//

☐ ADDITIONAL SHEETS ARE ATTACHED

☆U.S. GOVERNMENT PRINTING OFFICE: 1986-659-121/40260

FAA AIRCRAFT REGISTRY
CAMERA NO. IN DATE: 8-29-89

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
Budget Bureau No. 04-R060.1

FOR FAA USE ONLY

OFFICE IDENTIFICATION
MSP GA00

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

1. AIRCRAFT	MAKE: PIPER	MODEL: PA34-220T
	SERIAL NO.: 34-8333043	NATIONALITY AND REGISTRATION MARK: N4293X
2. OWNER	NAME (As shown on registration certificate): The Rapat Corp	ADDRESS (As shown on registration certificate): Hawley Industrial Park, Hawley, MN. 56549

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION / 5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	(As described in item 1 above)				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE / MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Crystal Shamrock, Inc. 6000 Douglas Drive North Minneapolis, MN. 55429	U.S. CERTIFICATED MECHANIC FOREIGN CERTIFICATED MECHANIC X CERTIFICATED REPAIR STATION MANUFACTURER	CRS 3409

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE: 6/14/89

SIGNATURE OF AUTHORIZED INDIVIDUAL: Michael L. Anderson

7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is [X] APPROVED [ ] REJECTED

BY							
		FAA FLT. STANDARDS INSPECTOR		MANUFACTURER		INSPECTION AUTHORIZATION	OTHER (Specify)
		FAA DESIGNEE	X	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL
6/14/89	CRS 3409	Michael L. Anderson

FAA Form 337 (7-67) (8320)

FAA AIRCRAFT REGISTRY
CAMERA NO. IN DATE: 8-29-89

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED *(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

Installed a II Morrow Apollo 618 TCA Loran C system. Panel unit is mounted at the top of the right side radio stack with the A-23 antenna mounted on the bottom of the aircraft fuselage beneath the rear seat above wing spar. The Loran C is a stand alone system and is not coupled to any other aircraft system other than avionics buss power and ground. The Loran C is not certified for IFR and is not to be used for primary navigation. Panel is placarded "Loran C not approved for IFR." Unit tested and was found not to interfere with existing navigational equipment installed. Installation completed using manufacturers instructions and following AC43.13 1A chapter 11 sections 2,3,5, and 7 and 2A chapters 2 and 3. Weight and Balance and equipment list updated to reflect this installation. THE END NOTHING FOLLOWS //

☐ ADDITIONAL SHEETS ARE ATTACHED

☆U.S. GOVERNMENT PRINTING OFFICE: 1986-659-121/40260

FAA AIRCRAFT REGISTRY
CAMERA NO. 3N DATE: 10-23-84

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3. AIRCRAFT SERIAL NUMBER	4. CATEGORY
N4293X	Piper PA-34-220T	34-8333043	Normal

5. AUTHORITY AND BASIS FOR ISSUANCE
This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.
Exceptions:

None

6. TERMS AND CONDITIONS
Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
FEB 8 1983	J. TIFFANY	DOA SO-1

Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding $1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (7-67) FORMERLY FAA FORM 1362

U.S. Government Printing Office — 1976-675-500

FAA AIRCRAFT REGISTRY
CAMERA NO. 3N DATE: 10-23-84

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The information normally (rnished in Section VIII is on (le as part of the historical inspection record at Piper Aircraft Corporation.
Current Airworthiness Certificate issued I/A/W FAR 21.183(a) PER 21.273.

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Form Approved
Budget Bureau No. 04-R0058

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

APPLICATION FOR AIRWORTHINESS CERTIFICATE

INSTRUCTIONS—Print or type. Do not write in shaded areas; these are for FAA use only. Submit original only to an authorized FAA Representative. If additional space is required, use an attachment. For special flight permits complete Sections II and VI or VII as applicable.

I. AIRCRAFT DESCRIPTION

1. REGISTRATION MARK: N4293X	2. AIRCRAFT BUILDER'S NAME (make): Piper	3. AIRCRAFT MODEL DESIGNATION: PA-34-220T	4. YR. MFG.: 83
5. AIRCRAFT SERIAL NO.: 34-8333043	6. ENGINE BUILDER'S NAME (make): Continental	7. ENGINE MODEL DESIGNATION: TSIO-360-KB/LTSIO-360-KB	FAA CODING: 710342Ø / 17819
8. NUMBER OF ENGINES: 2	9. PROPELLER BUILDER'S NAME (make): McCauley	10. PROPELLER MODEL DESIGNATION: 3AF32C508-B/3AF32C509-B	11. AIRCRAFT IS: XXXXXXX NEW XXXXXXX USED X IMPORT

II. CERTIFICATION REQUESTED

APPLICATION IS HEREBY MADE FOR: (Check applicable items)

A 1 X STANDARD AIRWORTHINESS CERT. (Indicate category) X NORMAL | UTILITY | ACROBATIC | TRANSPORT | GLIDER | BALLOON

B SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items)

2	LIMITED				
5	PROVISIONAL (Indicate class)	1	CLASS I		
		2	CLASS II		
3	RESTRICTED (Indicate operation(s) to be conducted)	1	AGRICULTURE & PEST CONTROL	2 AERIAL SURVEYING	3 AERIAL ADVERTISING
		4	FOREST (Wild life conservation)	5 PATROLLING	6 WEATHER CONTROL
		0	OTHER (Specify)		
4	EXPERIMENTAL (Indicate operation(s) to be conducted)	1	RESEARCH AND DEVELOPMENT	2 AMATEUR BUILT	3 EXHIBITION
		4	RACING	5 CREW TRAINING	6 MKT. SURVEY
		0	TO SHOW COMPLIANCE WITH FAR		
8	SPECIAL FLIGHT PERMIT (Indicate operation to be conducted then complete Section VI or VII as applicable on reverse side)	1	FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE OR STORAGE		
		2	EVACUATE FROM AREA OF IMPENDING DANGER		
		3	OPERATION IN EXCESS OF MAX. CERTIFICATED TAKE-OFF WEIGHT		
		4	DELIVERING OR EXPORT	5 PRODUCTION FLIGHT TESTING	

C 6 MULTIPLE AIRWORTHINESS CERTIFICATE (Check appropriate Restricted Operation and Standard or Limited as applicable above)

III. OWNER'S CERTIFICATION

A. REGISTERED OWNER (As shown on Certificate of Aircraft Registration) IF DEALER, CHECK HERE → X

NAME: Piper Aircraft Corporation
ADDRESS: P. O. Box 1328, Vero Beach, FL 32960

B. AIRCRAFT CERTIFICATION BASIS (Check applicable blocks and complete items as indicated)

X AIRCRAFT SPECIFICATION OR TYPE CERTIFICATION DATA SHEET (Give No. and Revision No.): A7SO Rev. 9

X AIRWORTHINESS DIRECTIVES (Check if all applicable AD's complied with and give latest AD No.): 82-26

AIRCRAFT LISTING (Give page No(s).)

SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated)

C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS

X CHECK IF RECORDS IN COMPLIANCE WITH FAR 91.173

TOTAL AIRFRAME HOURS ~~XXXXXXXXXXXXXXXXXX~~ 4.1

3 EXPERIMENTAL ONLY—Enter hours flown since last certificate issued or renewed

D. CERTIFICATION—I hereby certify that I am the owner (or his agent) of the aircraft described above; that the aircraft is registered with the Federal Aviation Administration in accordance with Section 501 of the Federal Aviation Act of 1958, and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.

DATE OF APPLICATION	NAME AND TITLE (Print or type)	SIGNATURE
1/14/83	R. M. Agostini Agent	R M Agostini

IV. INSPECTION AGENCY VERIFICATION

A. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: (Complete this section only if FAR 21.183 (d) applies)

2 FAR PART 121 OR 127 CERTIFICATE HOLDER (Give Certificate No.)

3 CERTIFICATED MECHANIC (Give Certificate No.)

6 CERTIFICATED REPAIR STATION (Give Certificate No.)

5 AIRCRAFT MANUFACTURER (Give Name of Firm)

DATE	TITLE	SIGNATURE

V. FAA REPRESENTATIVE CERTIFICATION

(Check ALL applicable blocks) I find that the aircraft described in Section I or VII meets the requirements for: [X] The certification requested, or [4] Amendment or modification of its current airworthiness certificate. Inspection for a special flight permit under Section VII was conducted by: [ ] FAA Inspector; certificate holder under [ ] FAR 65, [ ] FAR 121 or 127, or [ ] FAR 145.

DATE	DISTRICT OFFICE	DESIGNEE'S SIGNATURE AND NO.	FAA INSPECTOR'S SIGNATURE
FEB 8 1983	MIA-MIDO ACE 182A	4 J Tiffany J. TIFFANY DOA SO-1	1

FAA Form 8130-6 (7-70)

FAA AIRCRAFT REGISTRY
CAMERA NO. 3N DATE: 10-23-84