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	<b>Quality Assurance Procedure for Verifying Table Alignment</b>		
	ATLAS project document no. ATL-IT-QP-0038	Date last modified. 21 May 2001	Approval status Full Production

## 1 Scope

### 1.1 Scope

This procedure establishes requirements for the alignment of the table during module assembly.

### 1.2 Applicability

#### 1.2.1 Applicability

This procedure applies to alignment of tables by the Indiana and Duke Production Facilities.

#### 1.2.2 Relation to Other ATLAS Project Requirements

The quality assurance procedure described by this specification is in addition to other tests and inspections required for module assembly. Module assembly may continue only after acceptable results from this procedure.

## 2 Applicable Documents

### 2.1 Document List

The following documents of the issue in effect on the effective date of this specification form a part of this specification to the extent specified herein.

#### 2.1.1 ATL-IT-EY-0004, ATLAS U.S. Environmental, Health, and Safety Plan

### 2.2 Amendments and Revisions

Whenever this procedure is amended or revised subsequent to its effective date, the Revised Version will be placed in the Engineering Data Management System, the Production DataBase displays, and released to the technicians. The Production

Engineers will coordinate release to the technicians.

## 3 Requirements

### 3.1 Background

Before a new module is placed on a station table, it is necessary to ensure the straightness of the V-groove alignment slots.

Appendix A provides a checklist to be used by Technicians performing this procedure.

## 4 Preparation for Delivery

### 4.1.1 Storage, Packing , and Shipping Requirements


There are no storage, packing, and shipping requirements applicable to this procedure.

## 5 Environment, Health, and Safety (EH&S)

### 5.1.1 EH&S Invoked

No special EH&S hazards are associated with the conduct of this process.

## 6 References

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## Appendix A

### *Table Name:*

### *tblChecklistVerifyTableAlignment*

#### *Step      Check List Steps*

1 Scan the "Quality Assurance Procedure to Verify Table Alignment" Product ID Barcode.

2 Use the Brunson optical level. Turn the optical micrometer on the end of the telescope so the dial is up. Set the dial to zero. Adjust the support screws to center the bubble of the stage level. Ignore mirrored level. Enter "Done".

3 Bring the front end into focus and use the crank of the transverse displacement stage to align the vertical cross hair on the center of the Vee. Enter "Done".

4 Focus on the back Vee and adjust the inclination of the telescope to center the cross hairs vertically on the Vee. Adjust the azimuth to place the vertical corss hair in the exact center of the Vee. Enter "Done".

5 Repeat steps 3 & 4 until the same azimuthal setting is required to center on both the front and back Vees. Enter "Done".

6 In the module book prepare a chart with with 4 columns and 7 rows and number each row 1-7 in the first column. The remaining 3 columns are for 3 independent reading of each Vee. Enter "Done".

7 Focus on Vee #1 and adjust the dial of the optical micrometer until the cross hair is centered. Record the number on the dial. Enter "Done".

8 Sweep past the center then reposition on the center of Vee #1. Record the number on the dial. Enter "Done".

9 Again, sweep past the center then reposition on the center of Vee #1. This is your final reading of Vee #1. Record the number on the dial. Enter "Done".

10 Adjust the inclination to move to the next Vee. Enter "Done".

11 Repeat steps 7 through 9 for Vee #2-7. Enter "Done".

12 Turn the optical micrometer so that the dial is on the right hand side. Enter "Done".

13 Check and readjust the stage spirit level and adjust the level of the telescope using the split bubble level. Enter "Done".

14 Make two more charts in the module book similar to the first chart and number each chart 1-7 in the first column. One chart is for the left side and one for the right side of the table. Enter "Done".


15 Place the height target on the first jig support beside the screw hole on the right-hand side. Illuminate it. Enter "Done".

16 Rotate the level to observe the target and set te optical micrometers so the horizontal crosshair is on the target point. Record the reading. Do this for all seven jig supports on the right side. Enter Done.

17 With the target on the seventh jig support rotate the level away and back to the target. Record the reading. Do this for all seven jig supports on the right hand side. Enter "Done"

18 Repeat 15 through 17 to obtain another reading at all seven jig supports. Enter "Done"

19 Move the target to the left-hand side of the first jig support beside the screw hole. Illuminate it. Enter "Done"

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20 Repeat 15 through 17 on the left hand side. Enter "Done"

21 Wait for approval from the production engineer before moving the equipment. Enter "Done"

22 Enter "Save" to save the data and exit the form. Otherwise enter "Cancel" to exit the form without saving.

Quality Assurance Procedure for Verifying  
Table Alignment Product ID Barcode

<b>Approvals</b>			
Name	Signature	Revision	Date
J.Callahan		B	
D.Rust		B	
C. Wang		B	

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Procedure Part Number

