SUPPLEMENTARY INFORMATION

for use with the

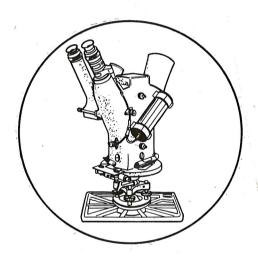
WILLIS PENDULUM ASTROLABE

Prepared by

John E. Willis

ENGINEERING DEPARTMENT DAVID WHITE COMPANY

UNIVERSITY OF ILLINOIS OBSERVATORY
LEBANA, ILLINOIS 61801



DAVID WHITE COMPANY

315 W. COURT ST. • MILWAUKEE 12, WIS.

United States of America

Manufacturers of Precision Instruments for the Engineer-Geologist Surveyor

Supplementary Information for use with the Willis Pendulum Astrolabe

CONTENTS:

| | , | | | | | | | | | Page |
|----------------|----------|--------|-------|-------|--------|-------|-------|------|--------|------|
| References . | • | | | | • (| | | | | 2 |
| Contents . | • | | • | • | • | | | | | 3 |
| Radio Time Sig | znals | | • | • | | • | | | | 4 |
| Radio Receivi | | | | | | 3 | | | | 4 |
| Recording of ! | | | | | | | | | • | 4 |
| Stopwatches . | • | • | • | • | • | | | | | 5 |
| Drum Chronogra | aphs. | | | • | | | | | | 5 |
| Chronometers v | | etric | Conte | cts | | | | | • | 5 |
| General Recomm | | | | | ng Fa | cilit | ies | | | 5 |
| Observing with | | | | | | • | | | | 6 |
| Observing in V | | | | • | | | | | • | 6 |
| The "General (| | | | Stars | " and | Its | Use | | • | 6 |
| Use of the Pri | | | | | | | | ì | • | |
| Latitude | | | | | | | | | | 7 |
| Use of the Day | | | | | | | les. | • | • | • |
| To get az | | | | | | | | tar | | 8 |
| To ident: | | | | | | | | | • | 8 |
| Sample Computi | | | | | | | | • | å | - 16 |
| Adjusting the | | | • | | | | - | • | | 17 |
| Getting the Az | | | - | etwee | n the | Pris | m Sio | ht | • | |
| and the | | | • | • | | • | | | | 17 |
| The Screw Asse | | | ing t | he Pe | ndul u | m | | | • | 18 |
| Discussion of | | | | | | | | • | • | 20 |
| in Survey | | | | | | | _ | | 19 | - 22 |
| Resolutions of | | | | | | Geode | sv | | | 22 |
| and Geoph | | | | | | | | | | 22 |
| Use of the Per | | | | | | | | | • | ~~ |
| Purposes | | | | | | _ | | - | | 23 |
| Advantages of | the Pend | lulum. | Astro | labe | relet | ive t | 0 | • | • | 20 |
| Astrolabe | | | | | | | | in | | 24 |
| Packing List, | | | | | | | | | • 1 | 25 |
| Correction to | | | | | | | | | - | 26 |
| The Greek Alph | | | | | | | | PILO | • | 26 |
| Abbreviations | | | | | | | | | • | 27 |
| | | | | | | | | | | |

Packing List, Willis Pendulum Astrolabe Outfit, 1945 Model.

- 1 Pendulum astrolabe (except eyepiece assembly), on trivet plate. With dust cap.
- 1 Eyepiece assembly.
- 1 Objective dew cap.
- 1 Finder telescope with prism sight. With dust cap.
- 2 Adjusting pins.
- 1 Screw driver.
- 1 Brush.
- 1 Oil container.
- 3 Trivet points.
- 6 spare electric lamps.
- 1 Package of cotton.
- 1 Galilean Telescope.
- 1 Stop watch.
- 1 Carrying case.
- 1 Astrolabe tripod.
- 1 Book, Apparent Places of Fundamental Stars, for the current year. 60°-Altitude Tables:
- 1 Set for latitudes 0° to 25°.
- 1 Set for latitudes 25° to 50°.
 1 Set for latitudes 50° to 75°.
- 1 Set for latitudes 75° to 80°.
- 1 Pad, David White Company Form WA.
- 1 Pad, David White Company Form WB.
- 2 Copies, "The Willis Pendulum Astrolabe".
- 2 Copies, U. S. Engineer School Technical Instructions for 60 Pendulum Astrolabe.
- 1 Pad, Survey Form 45.
- 1 Pad, Survey Form 47L.
- 1 Pad, Survey Form 49.
- 1 Pad, Survey Form 78.
- 1 Pad, Survey Form 78L.
- 1 Package, Miscellaneous Information.