

XIII

THE TERRAN CHRONOGRAPH

Document XIII of the Terran Series

*An Instrument That Records Time Across Four Scales
Simultaneously — Second, Day, Week, Month, and Year — on a
Single Face, Grounded in the Mathematical Closure of the Terran
Calendar*

Lee-Kah Williams

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One planet. One coherence.

The thirteenth document of the Terran Series. Thirteen documents for a thirteen-month calendar. The series closes where the math does.

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Abstract

This document describes the Terran Chronograph — an instrument that records temporal position across four nested scales simultaneously on a single face: the second, the day, the week within the month, and the month within the year. The instrument is built on the geometry of the Terran Soul Star, a {13/5} star polygon whose 13 points correspond to the 13 months of the Terran Calendar, whose 52 triangles and diamonds correspond to the 52 weeks of the Terran Practice, and whose outer ring of 365 tick marks (366 in leap years) completes one revolution in one Terran year. The NH anchor is April 1; the SH anchor is October 15 — exactly six Terran months apart, ensuring both hemispheric responses enter Zola on September 16 simultaneously. The mathematical foundation is the closure proof: $60 \times 24 \times 7 \times 52 \div 13 \div 4 \div 7 \div 24 = 60$. Document XIII is the thirteenth and final document of the Terran Series.

1. The Number Thirteen

The Terran Series is built around the number thirteen — the number of months in a year anchored to the March equinox, the number of points in the {13/5} Soul Star, the number of signs in the restored zodiac including Ophiuchus. Document XIII is the thirteenth document of a thirteen-document series. This is not a coincidence arranged after the fact.

A chronograph, from the Greek *chronos* (time) and *graphos* (to write or record), is an instrument that records time. The Terran Chronograph records four simultaneous temporal positions on one face — second, day, week, and month. No prior instrument has done this.

2. The Mathematical Closure

The Terran Calendar is internally consistent with standard time units. The proof:

$60 \text{ minutes} \times 24 \text{ hours} \times 7 \text{ days} \times 52 \text{ weeks} = 524,160 \text{ minutes per Terran year}$

$524,160 \div 13 \text{ months} = 40,320 \text{ minutes per month}$

$40,320 \div 4 \text{ weeks} = 10,080 \text{ minutes per week}$

$10,080 \div 7 \text{ days} = 1,440 \text{ minutes per day}$

$1,440 \div 24 \text{ hours} = 60 \text{ minutes per hour}$

The division chain returns to 60. The Terran Calendar requires no new units of time. Every unit divides evenly into every other. There are no remainders. This closure is the mathematical foundation of the Terran Chronograph.

3. The Zola Correction and the Simultaneous Entry

The Terran base year of 364 days (13×28) falls short of the solar year by approximately 1.2422 days per year. The correction is absorbed by Zola — the planetary month:

- Standard year: $12 \times 28 + 29 = 365$ days
- Leap year: $12 \times 28 + 30 = 366$ days
- Average: 365.2425 days (matching the Gregorian correction)

The NH anchor (April 1) and SH anchor (October 15) are exactly 168 days apart — six Terran months of 28 days. This means both hemispheres enter Zola on the same calendar date every year: September 16. This simultaneity is not incidental. It is what the Terran Series requires: Zola is the planetary month, belonging to neither hemisphere and shared by both. The Chronograph marks Zola days in purple on the day ring so the observer can see exactly where in the planetary pause the year rests.

4. The Instrument

4.1 Overview

Layer	Element	Scale	Count
Outer ring	Day tick marks	1 year	365 / 366
Star body	13 star points	1 month each	13
Star body	39 triangles	1 week each	39
Star body	13 diamonds	1 week each	13
Center	Standard clock face	Hour · Minute · Second	—

4.2 The Three Hands

- Day hand — gold, thin. One revolution per 365 days (366 in leap years). Starts at top on April 1 (NH) or October 15 (SH).
- Month hand — white, medium. Points to current soul month star point. Advances every 28 days.
- Week hand — dimmer, shorter. Points to current practice week triangle or diamond. Advances every 7 days through 52 markers.

4.3 The Center Clock

A standard analog clock face shows current local time. The medallion is colored by the current soul month's movement.

4.4 Hemispheric Correction

In Southern Hemisphere mode, all hands sweep counter-clockwise — reflecting the apparent motion of the SH sun. The day ring ticks arc left from the top. Soul month labels rearrange with Zola at top and Acerto immediately to its left, reading counter-clockwise through the SH year. Soul month movements are season-aligned independently.

5. The {13/5} Star Geometry

Drawing order: 0 → 5 → 10 → 2 → 7 → 12 → 4 → 9 → 1 → 6 → 11 → 3 → 8 → 0

Element	Count	Meaning	Scale
Star points	13	Soul months	28 days each
Outer triangles	13	Encounter weeks	Week 1 of each month
Middle triangles	13	Resistance weeks	Week 2 of each month
Inner triangles	13	Integration weeks	Week 3 of each month
Diamonds (NH)	13	Transmission weeks	Week 4 of each month
Diamonds (SH)	13	Encounter weeks — primary	Week 1 of each month
Total markers	52	All practice weeks	7 days each
Day ring ticks	365/366	All days of year	24 hours each

6. Relationship to the Terran Series

- Document I: The proposition — 'Life is coherence that has learned to write itself into time' — is enacted by the Chronograph continuously.
- Document II: The {13/5} polygon is the face of the Chronograph.
- Document III: The 13-month, 28-day structure governs all hand positions.
- Documents IV-VI: The restored 13-sign zodiac appears in star point labels.

- Document VIII: The three movements color the Chronograph face by current month.
- Document IX: The 52 practice markers — 39 triangles and 13 diamonds — are the week markers. In SH, diamonds are primary (Encounter); in NH, triangles lead.
- Document X: The Zola correction and the simultaneous September 16 entry anchor the calendar to the solar year.
- Document XI: Common questions about the Series are answered by the instrument itself.
- Document XII: The Infinity Clock shows one planetary year from two hemispheric responses in space. The Chronograph shows all four time scales simultaneously in time. Together they are the two instruments of the Terran Series — one spatial, one temporal.

7. The Closure

The Terran Series began with a proposition in Document I:

"Life is coherence that has learned to write itself into time."

Document XIII ends with a proof:

$$60 \times 24 \times 7 \times 52 \div 13 \div 4 \div 7 \div 24 = 60$$

The division chain returns to where it started. The Terran Calendar divides without remainder, absorbs the solar drift in the one month designed to hold it, and places both hemispheres in the planetary pause on the same day. The Chronograph makes all of this visible — every second writing the observer's position in time across four scales simultaneously.

Thirteen documents. Thirteen months. One planetary year. One proof.

8. Priority Date and Patent Intention

Conceived, designed, and implemented by Lee-Kah Williams in July 2026. This document establishes the priority date.

Key claims of novelty:

- A timekeeping instrument displaying four simultaneous temporal scales on a single face
- The {13/5} star polygon as the instrument face, with star points as month markers and triangles/diamonds as week markers
- An outer day ring of 365 or 366 tick marks completing one revolution per solar year
- The Zola correction applied to the day ring length, with Zola days marked in purple
- NH anchor April 1 and SH anchor October 15 — exactly six Terran months apart — ensuring simultaneous Zola entry on September 16
- Counter-clockwise hand motion and season-aligned colors for the Southern Hemisphere
- Mathematical closure: $60 \times 24 \times 7 \times 52 \div 13 \div 4 \div 7 \div 24 = 60$

This document does not constitute a filed patent application. It establishes a documented priority date for prior art and inventorship purposes.