INSIDE
CELESTRON ® NEXSTAR CONTROLLERS

NEXSTAR

NEXSTAR+, NEXSTAR+ USB

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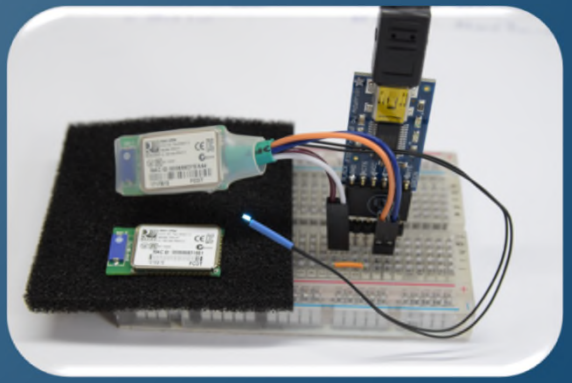
BLUETOOTH FOR TELESCOPE HANDCONTROLLERS



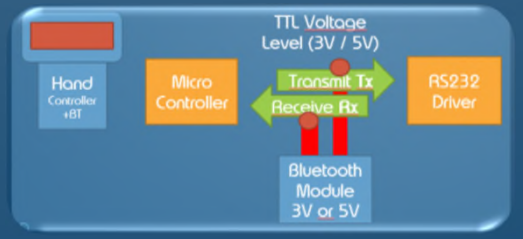
ALL INFORMATION, DOCUMENTS & VIDEOS

HANDCONTROLLER UPGRADE BIBLE

https://astro.marxram.de/handcontroller-upgrade-bible/

©Roland Marx

Version 1.0 (22.9.2018)



MY FREE APP:

SCOPE FRIEND

AVAILABLE @ GOOGLE PLAY STORE

Synchronize

Time

Date

Location

https://play.google.com/store/apps/details?id=de.marxram.astro.scopefriend

DISCALIMER

- This document is ment as a reference only
- It may also contain some errors like incorrect labels or voltages
- Please doublecheck if possible, check the electronic devices documentation, try to trace electricity (e.g. GND, VCC,…)
- To manipulate your Handcontroller may break it, or it's capabilities to communicate
- You should be experienced in soldering, before you start
- Everything you do, you do at your own risk!

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NEXSTAR

Important Facts

- 5V TTL Logic Levels
- Easy to Upgrade

Display

Telescope Connector

12 -> 5 V
Voltage Regulator

Micro-Controller

Crystal

Flash Memory

RS232 Driver

RS232 Connector

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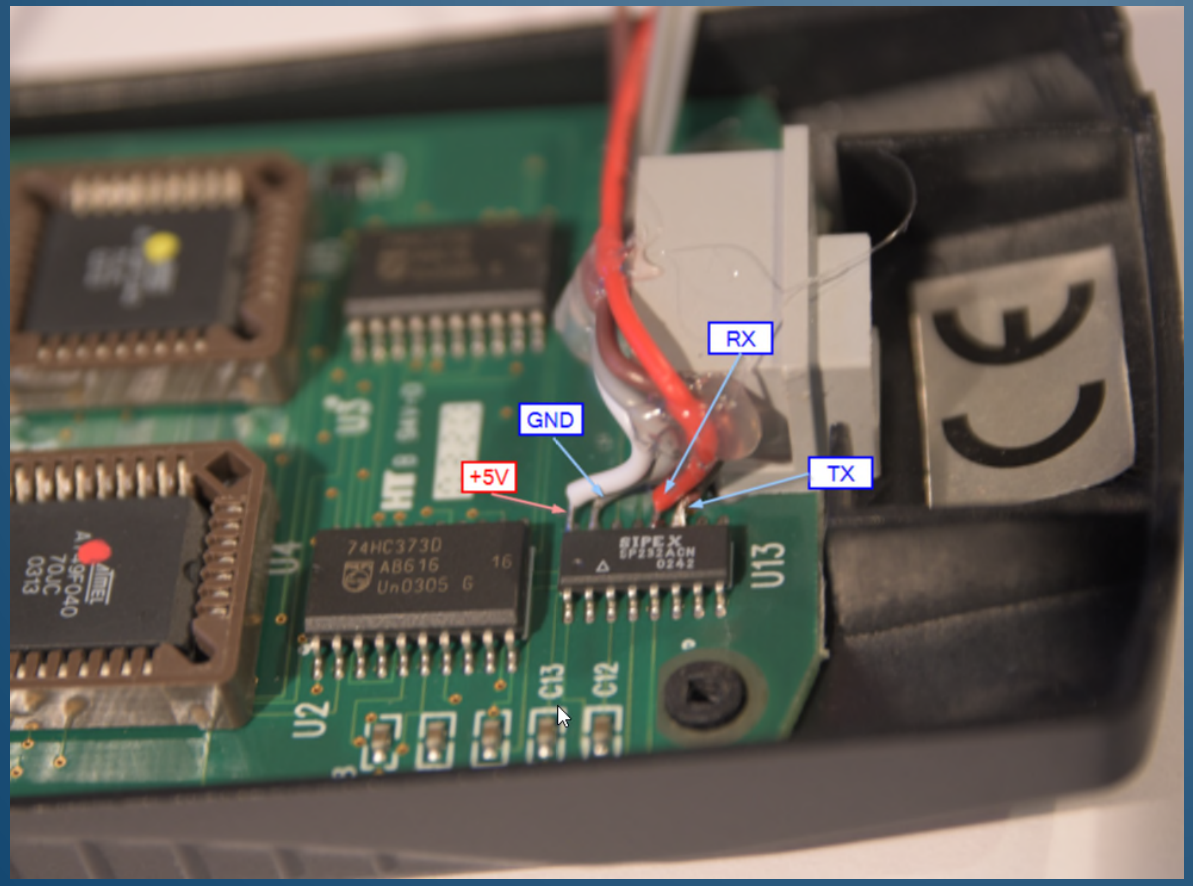
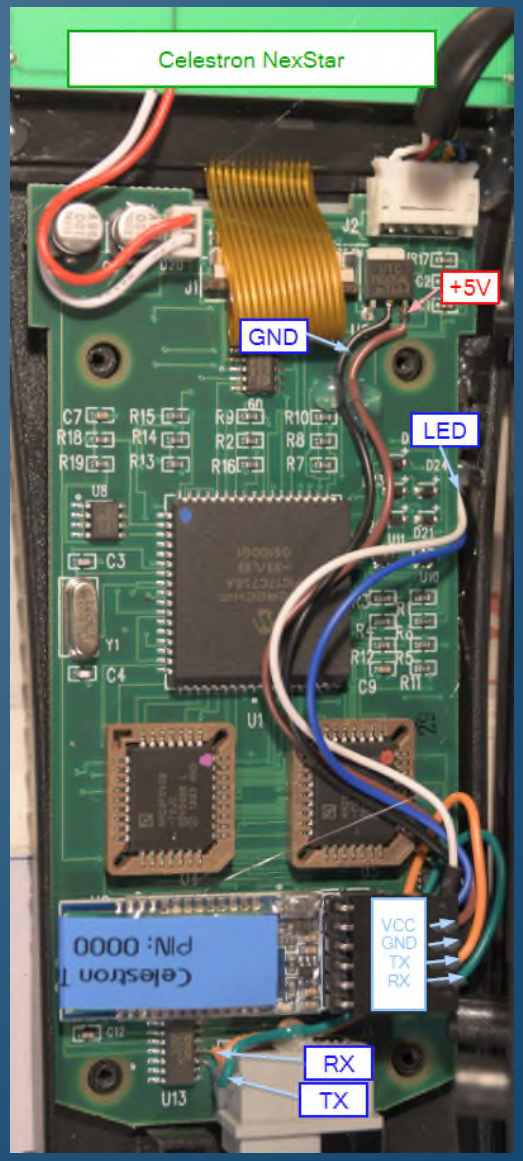
NEXSTAR ~ HC-05





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NEXSTAR+

Important Facts
- 3V TTL Logic Levels
- Difficult to upgrade

Display

Telescope Connector

12 -> 3 V Voltage Regulator

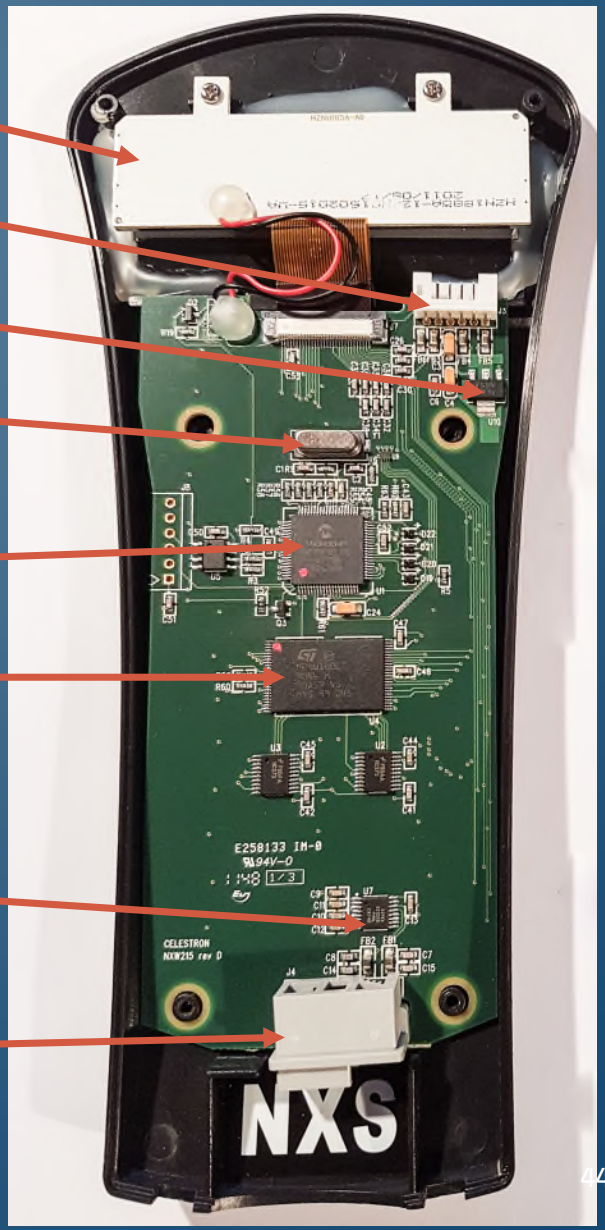
Crystal

Micro-Controller

Flash Memory

RS232 Driver

RS232 Connector



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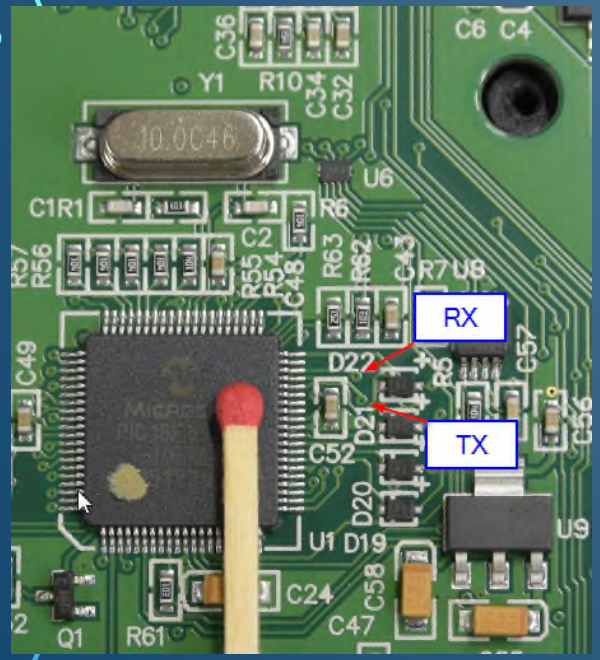
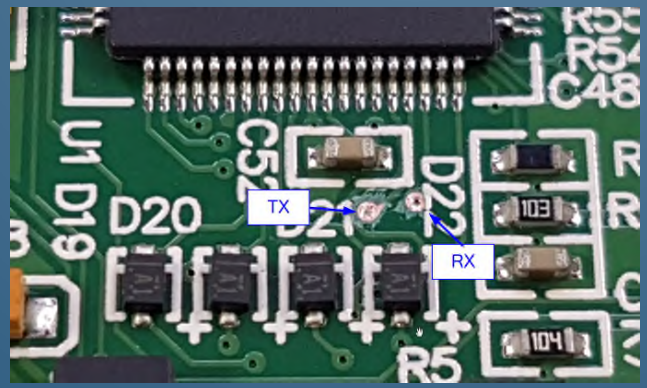
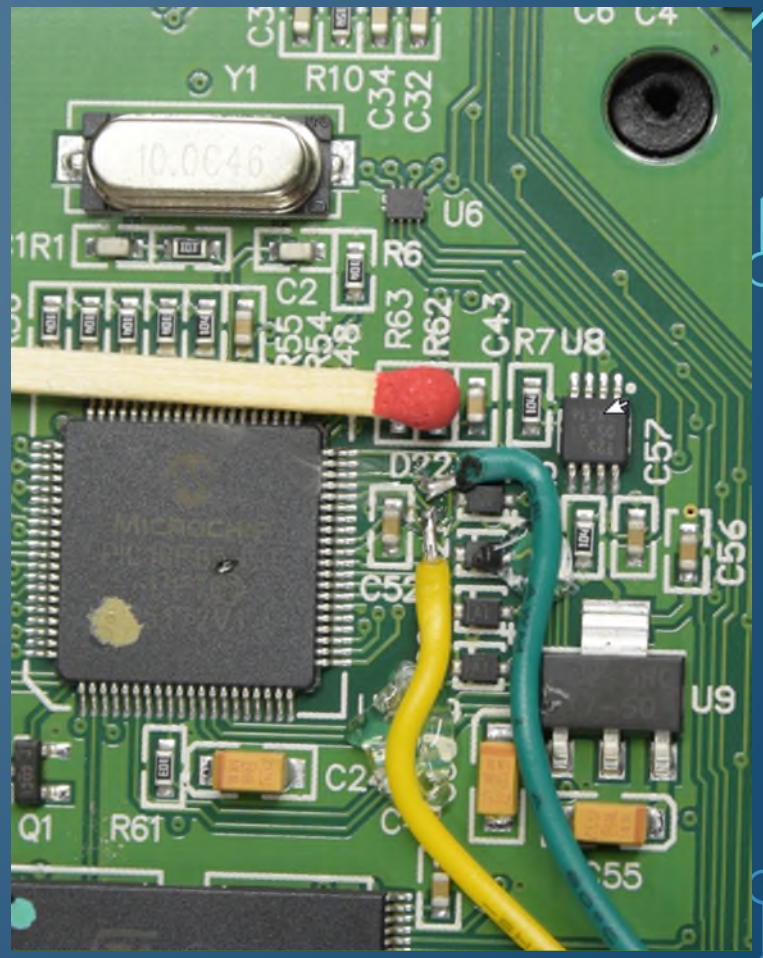
NEXSTAR+ ~ RN41/42







NexStar+ and SynScan V4 have nearly identical parts & PCB

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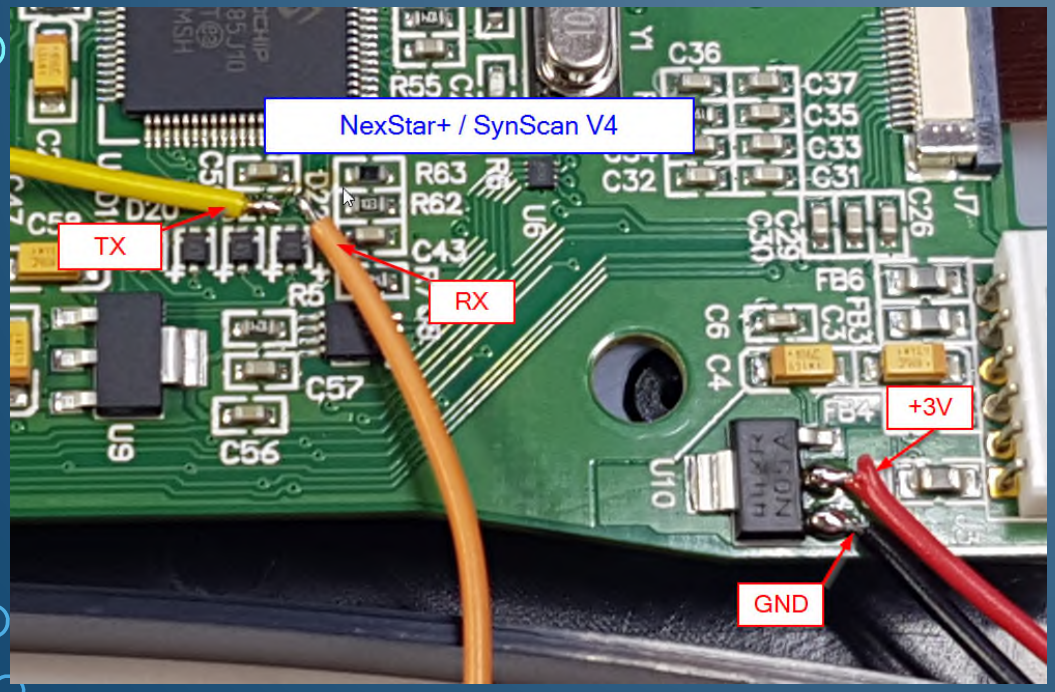
NEXSTAR+ ~ RN41/42



NexStar+ and SynScan V4 have nearly identical parts & PCB

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NEXSTAR+ USB

Important Facts

- 3V TTL Logic Levels
- Easy to upgrade

Display

Telescope Connector

12 -> 3 V
Voltage Regulator

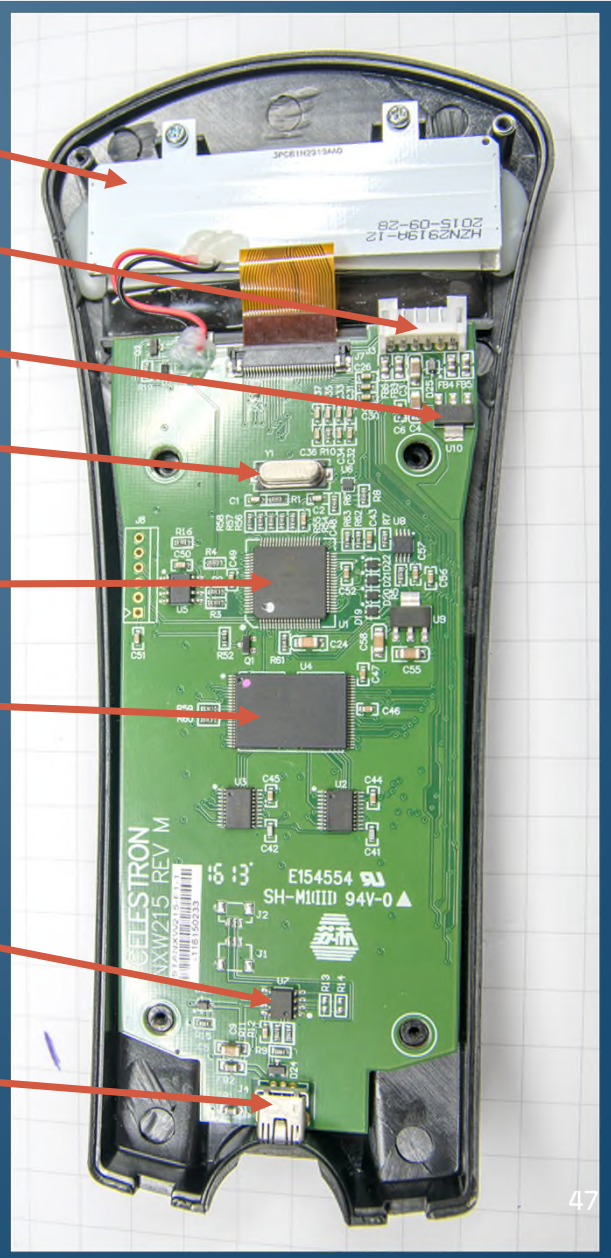
Crystal

Micro-Controller

Flash Memory

USB Driver

USB Connector



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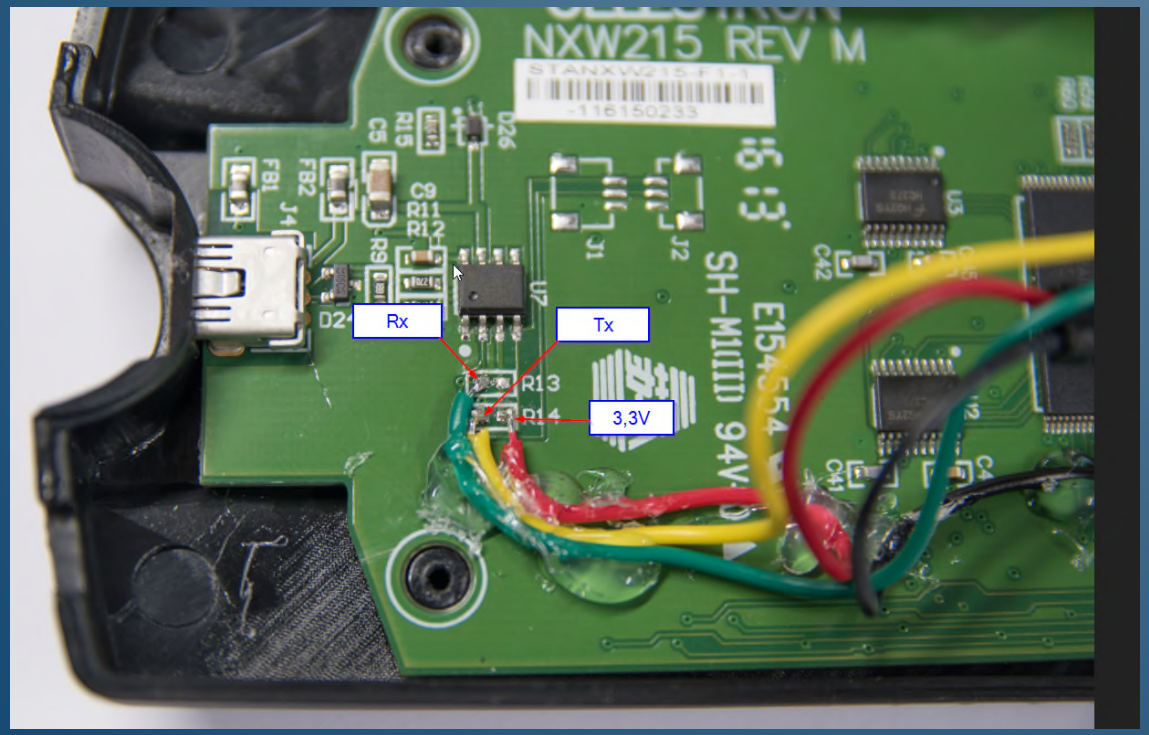
NEXSTAR+ USB ~ HC-05,RN41/42



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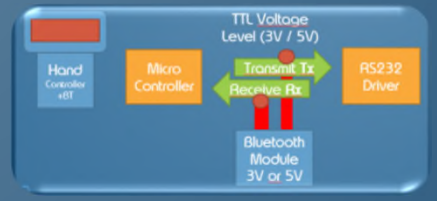
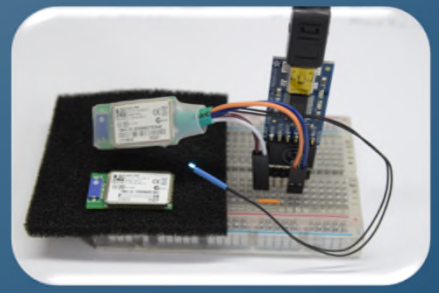
More Videos and Documents

https://astro.marxram.de/handcontroller-upgrade-bible/

1. General Information on Upgrading to BT



2. Bluetooth Modules
   - Specs
   - How to program BT Name, Pin ...
   - Status LED



3. Hand Controllers in detail
   - Skywatcher, MEADE, Celetsron
   - HowTo solder guide

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GOOD LUCK, CLEAR SKIES & THANKS FOR WATCHING

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http://youtube.com/c/AstroKanalMARXRAM

YOU LIKE SCOPE FRIEND?

PLEASE RATE & COMMENT

YOU LIKE MY PROJECTS?

DONATIONLINK https://www.paypal.me/MARXRAM

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