

KIC 011598201

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011598201-01	OBS	No	0.542347	131.848237	29.2	6.508	31.6	8.8	0.79	5632	0.57	4204.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011598201-01	OBS	FP	0.00	1	0	0	0	LPP_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

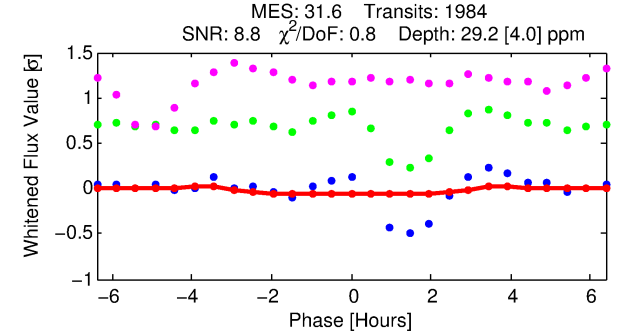
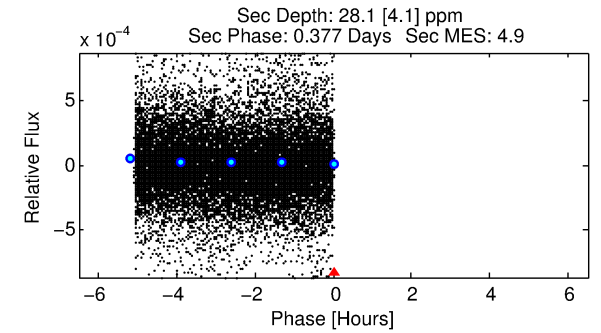
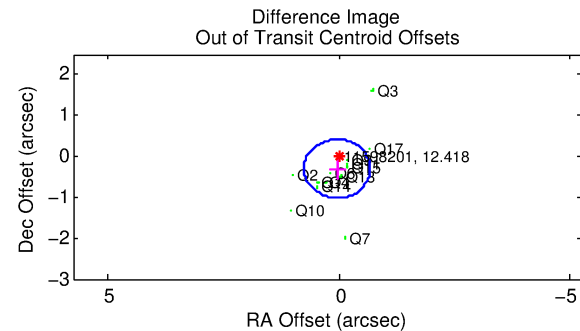
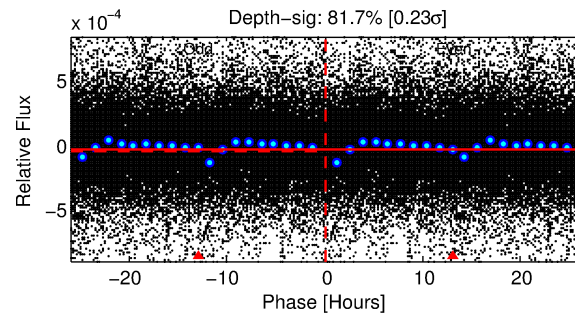
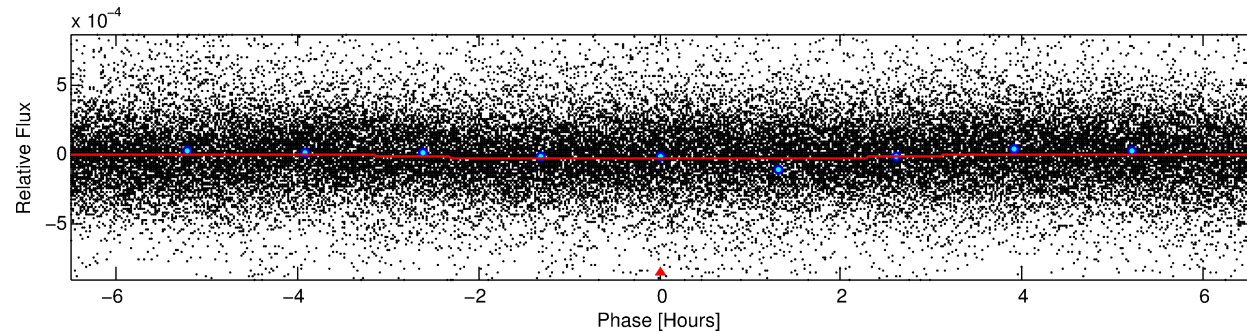
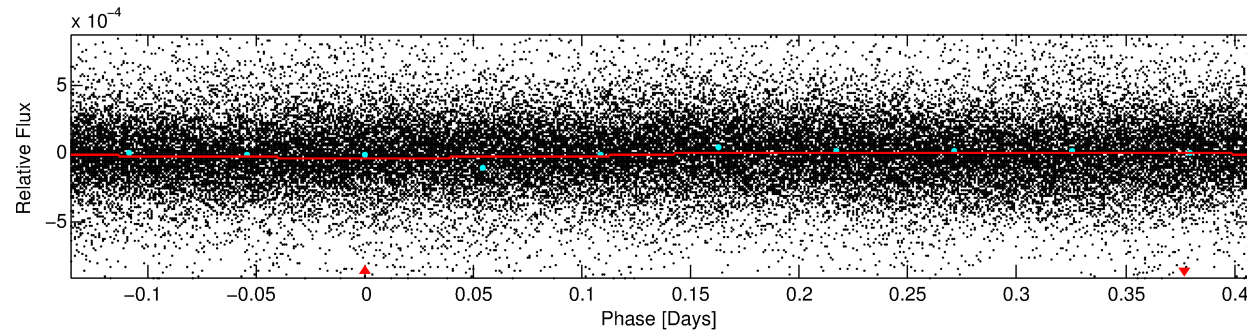
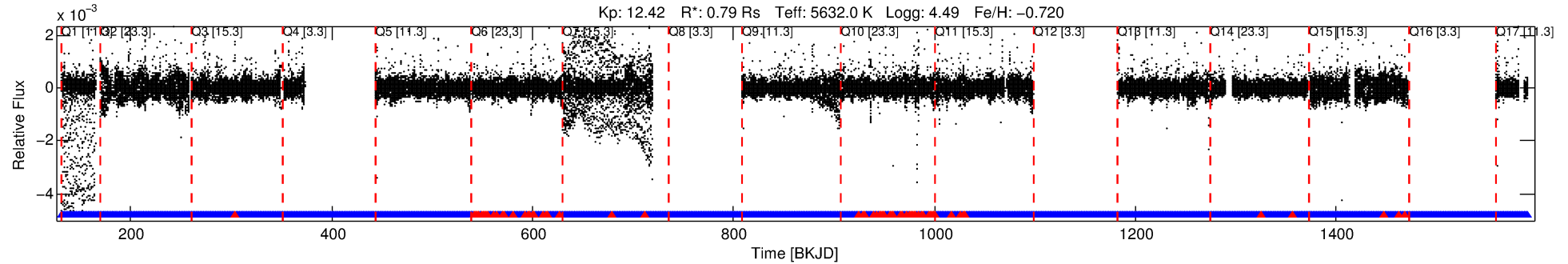
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011598201-01

No Significant Match Found

DV One-Page Summary

KIC: 11598201 Candidate: 1 of 1 Period: 0.542 d



DV Fit Results:

Period = 0.54235 [0.00001] d
Epoch = 131.8482 [0.0043] BKJD
Rp/R* = 0.0065 [0.0005]
a/R* = 1.00 [0.00]
b = 0.97 [0.02]
Seff = 4204.58 [1063.07]
Teq = 2053 [130] K
Rp = 0.57 [0.11] Re
a = 0.0116 [0.0017] AU
Ag = 6.53 [2.03] [2.72 σ]
Teffp = 5075 [313] K [8.92 σ]

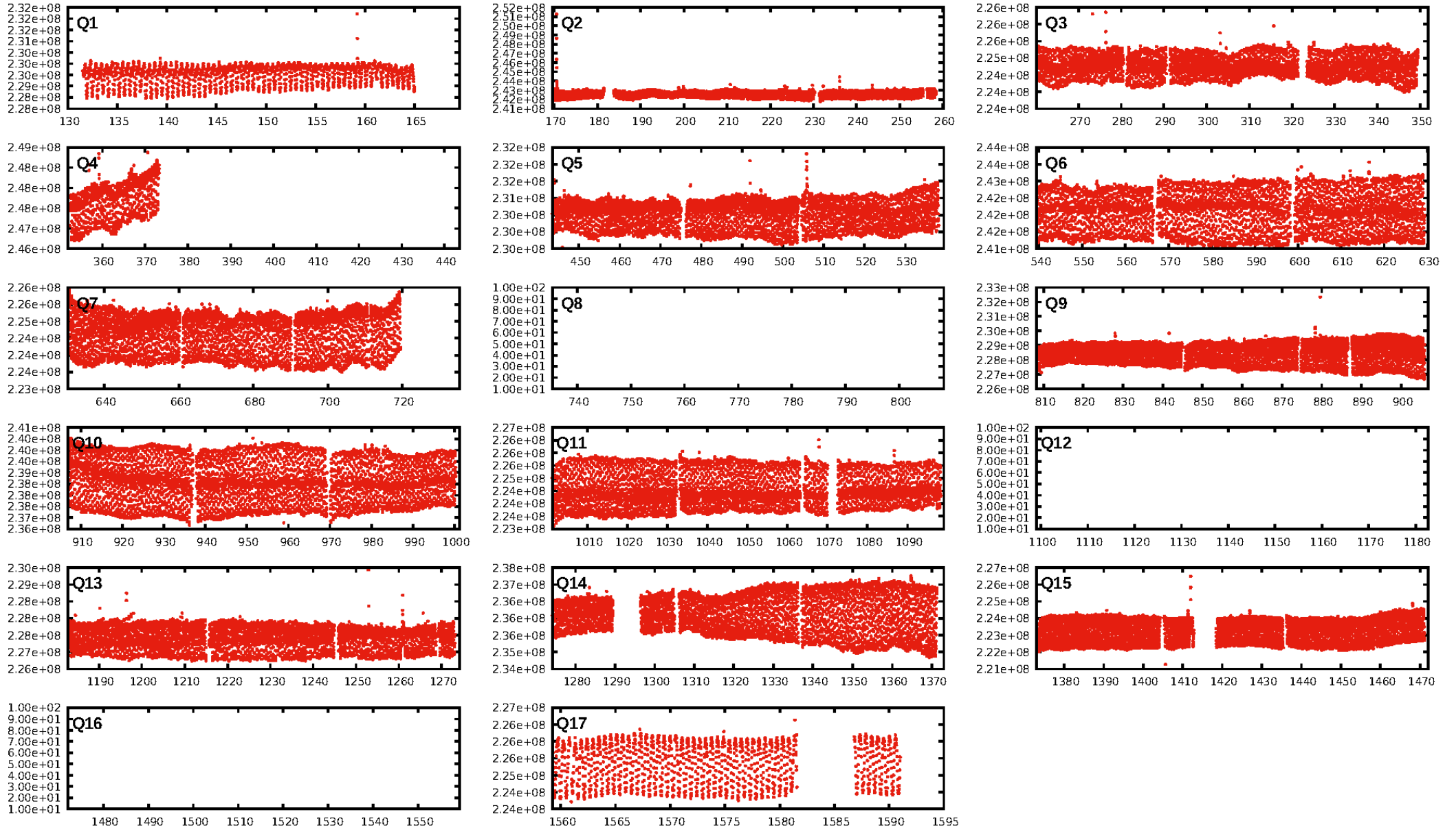
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [1754/1833]
GhostDiagnostic-chr: 9.921
Centroid-sig: 19.0%
Centroid-so: 0.458 arcsec [1.21 σ]
OotOffset-rm: 0.302 arcsec [1.26 σ]
KicOffset-rm: 0.499 arcsec [2.21 σ]
OotOffset-st: 4/4/1/4 [13]
KicOffset-st: 4/4/1/4 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 1.00 [14/14]

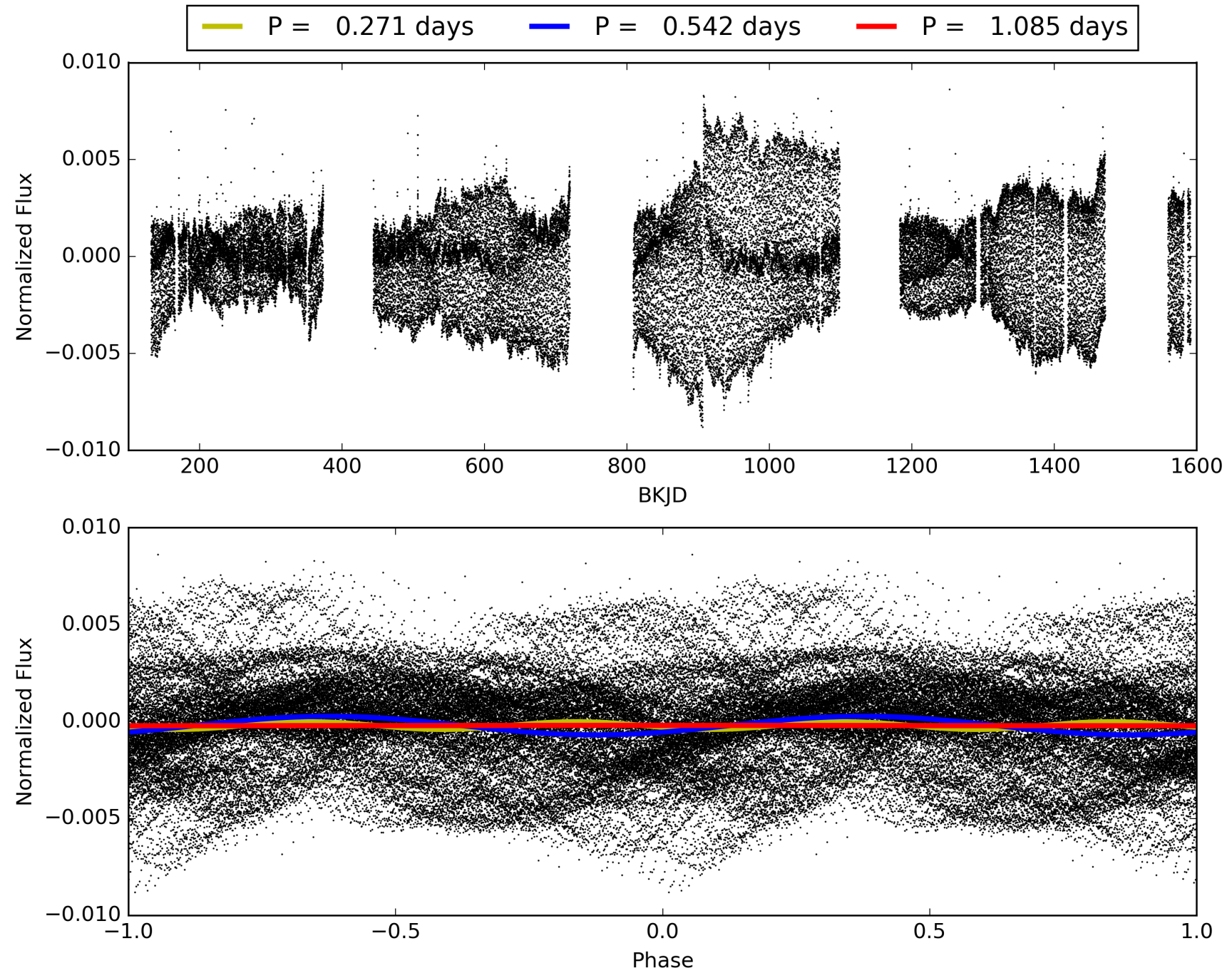
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:26:19 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011598201-01, PDC Light Curves

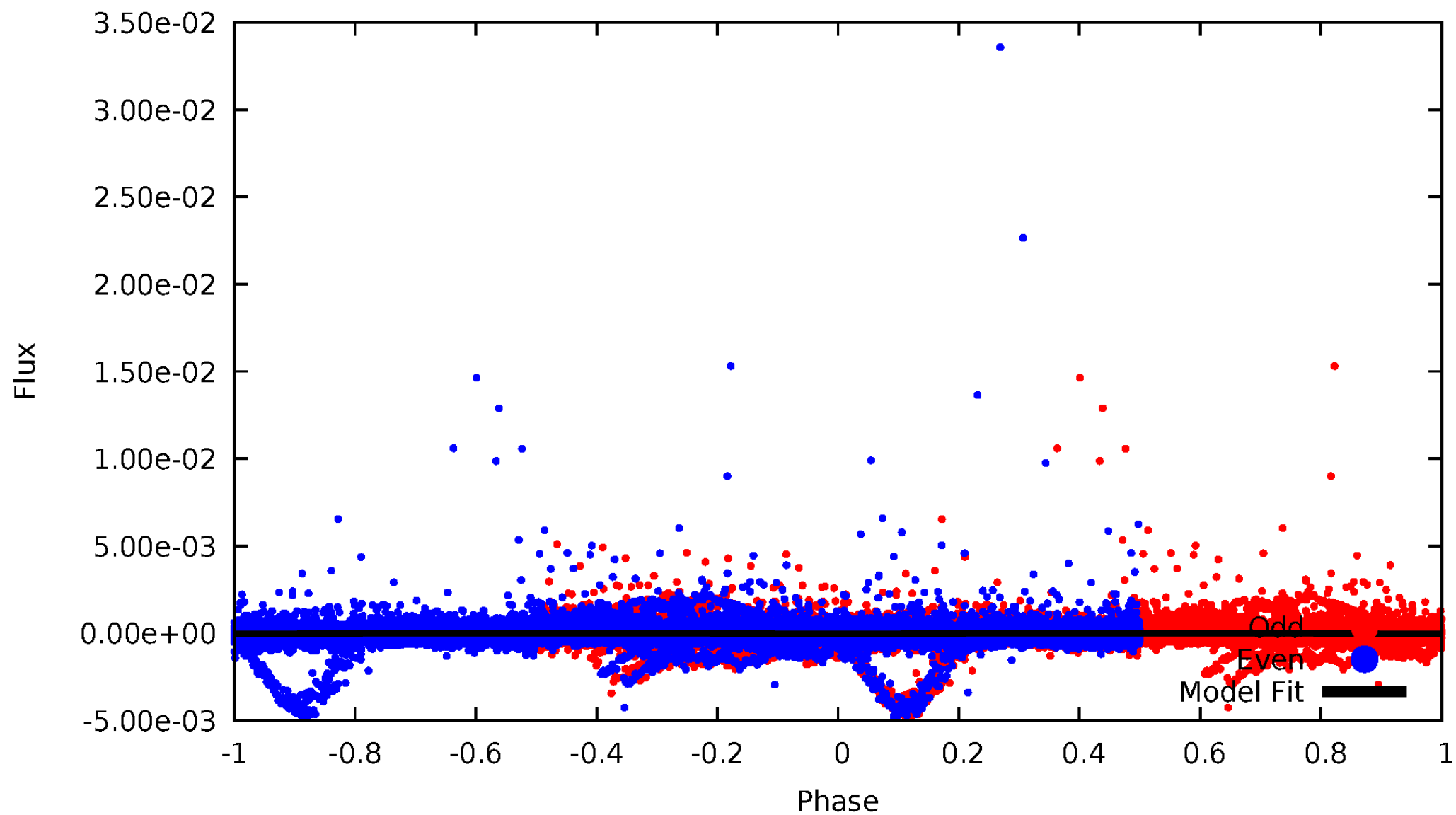


TCE 011598201-01



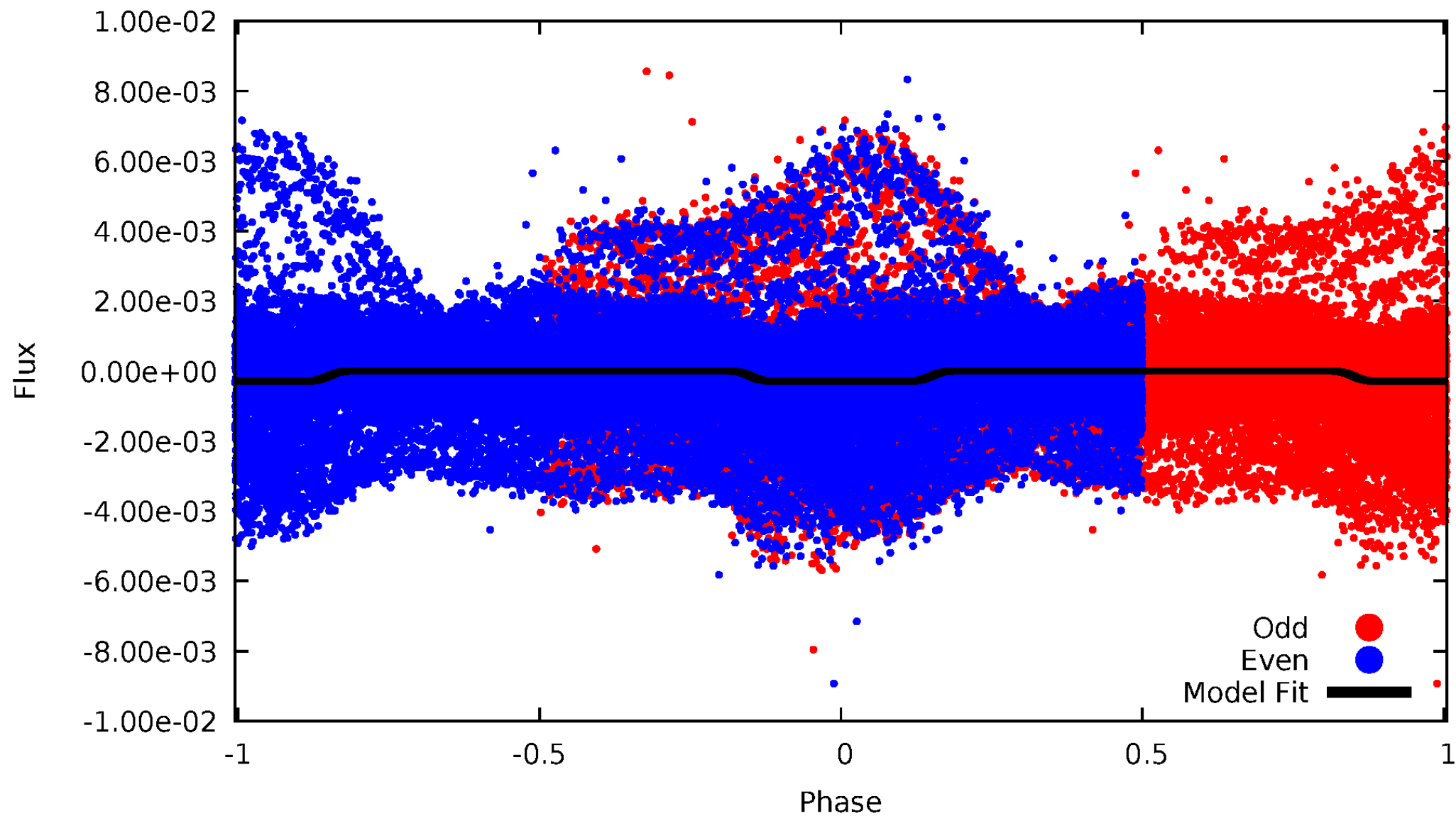
DV Odd/Even

TCE 011598201-01



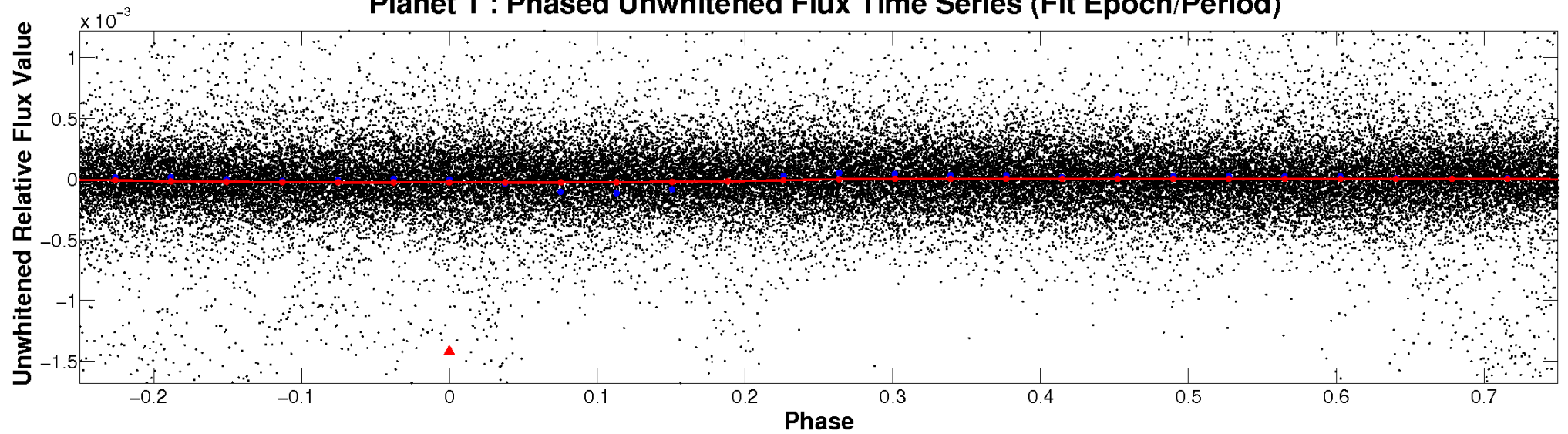
ALT Odd/Even

TCE 011598201-01

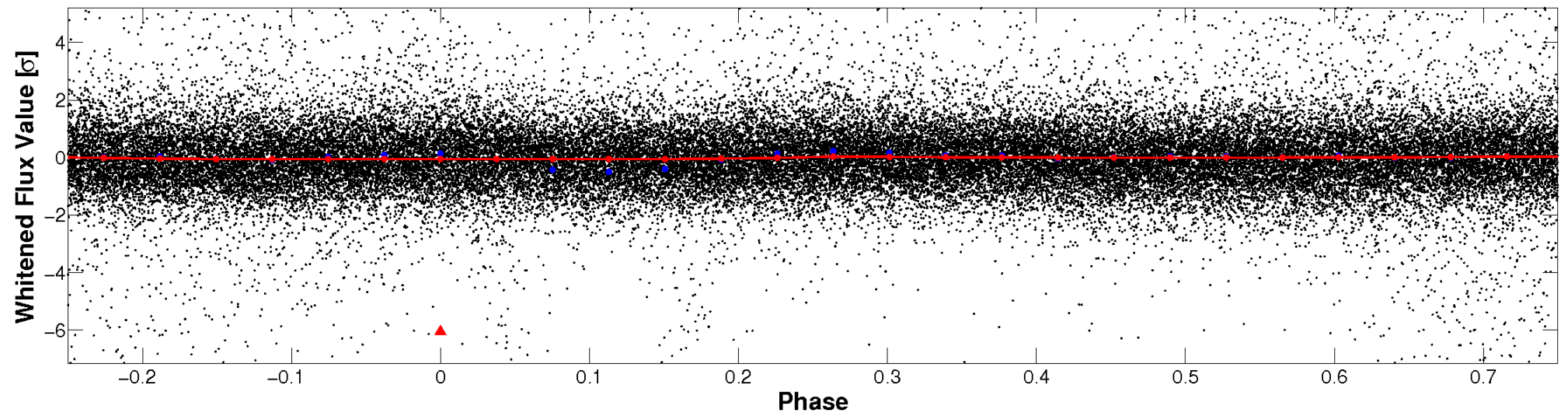


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

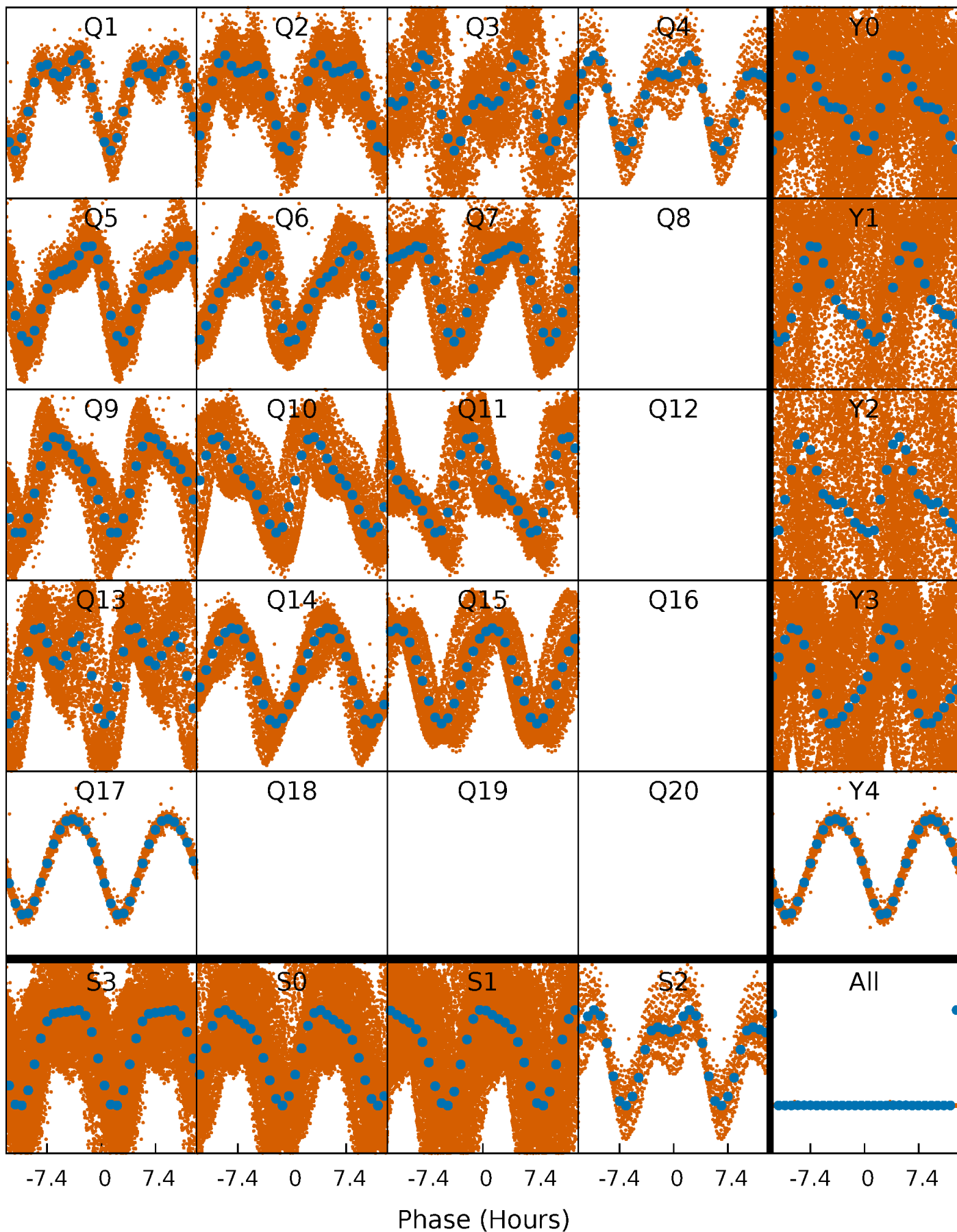


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



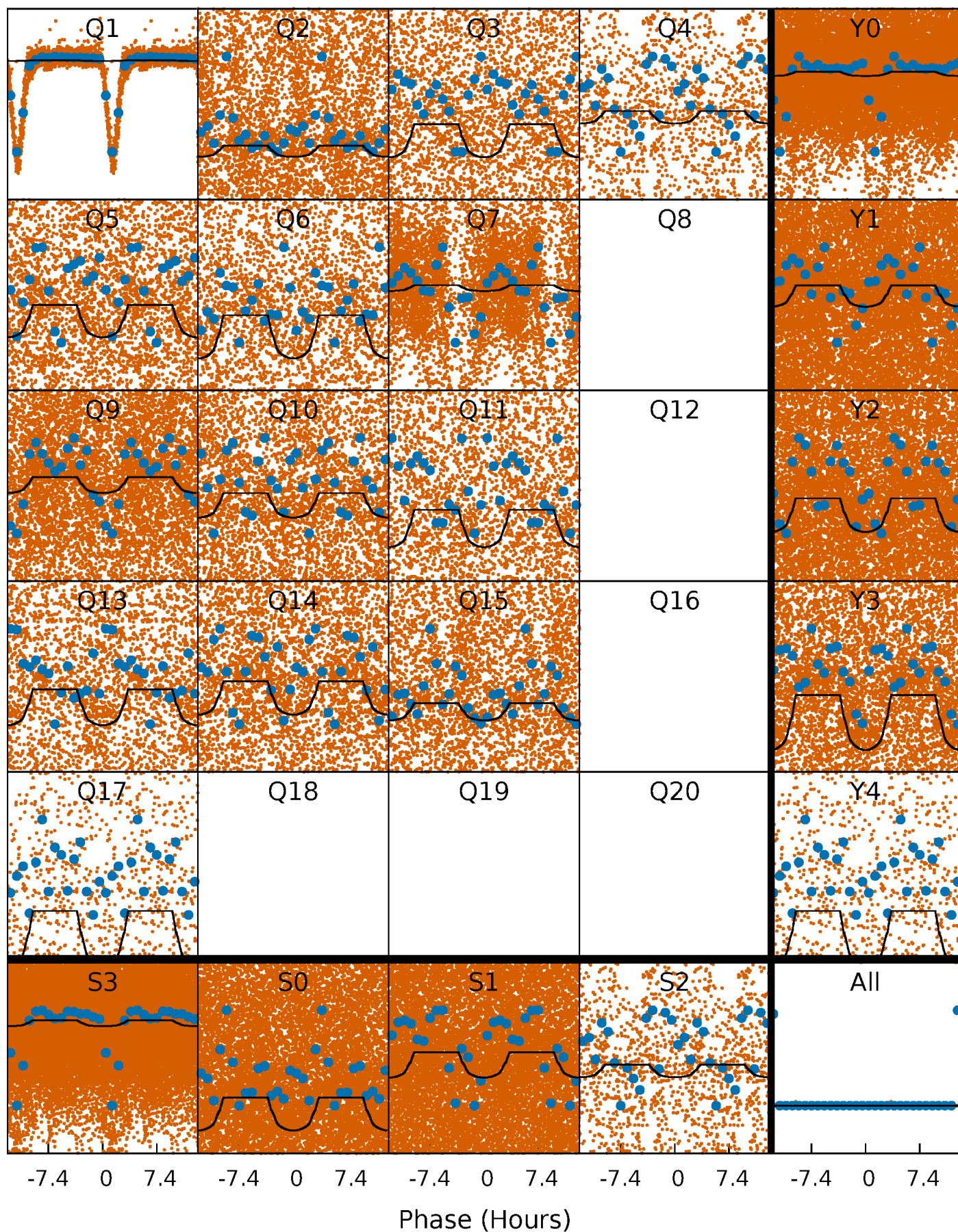
PDC Quarter-Phased Transit Curves

TCE 011598201-01 P= 0.542347 Days $T_0=131.848237$ (BKJD)



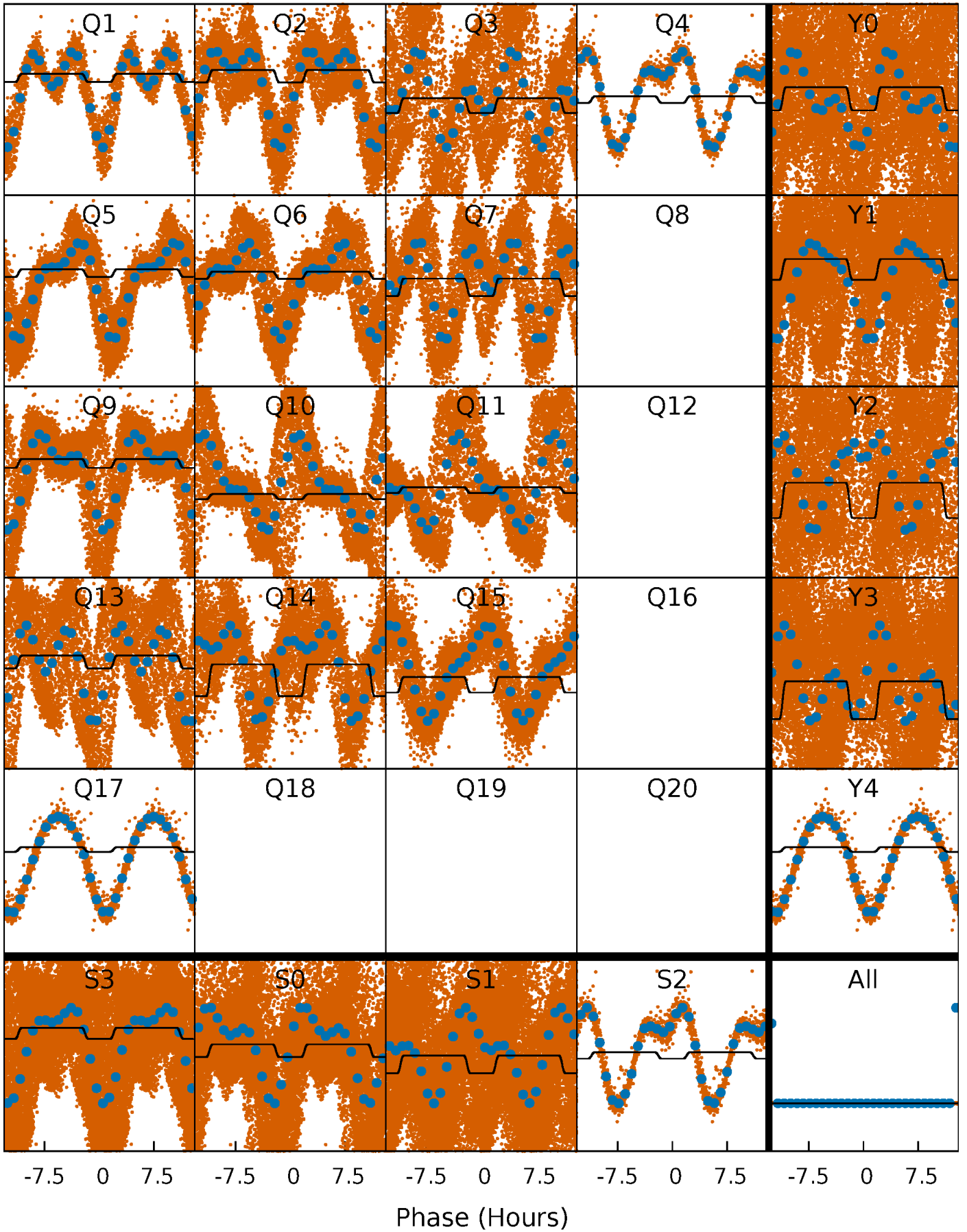
DV Quarter-Phased Transit Curves

TCE 011598201-01 P= 0.542347 Days $T_0=131.848237$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

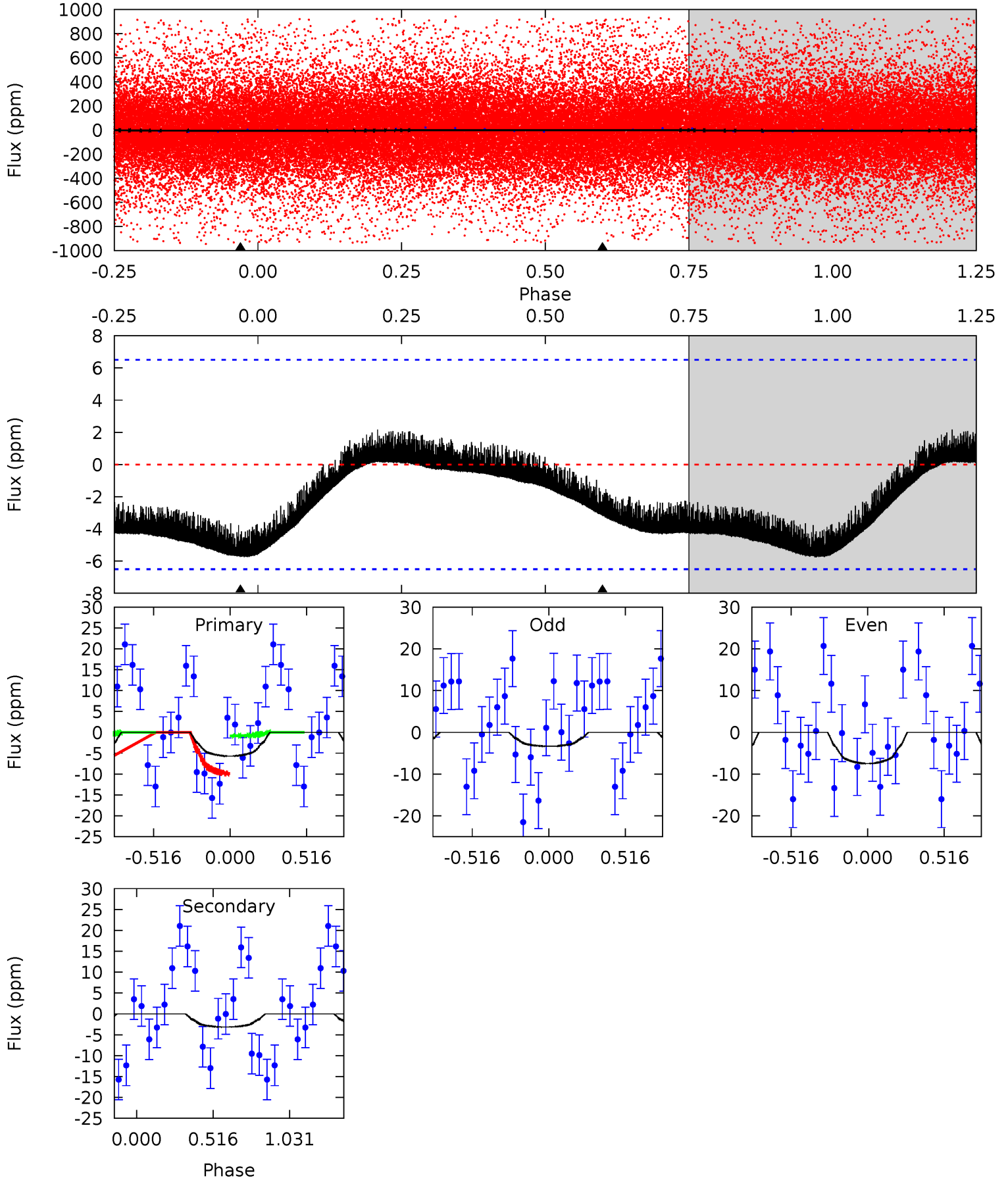
TCE 011598201-01 P= 0.542360 Days $T_0=131.880193$ (BKJD)



DV Model-Shift Uniqueness Test

011598201-01, P = 0.542347 Days, E = 131.305890 Days

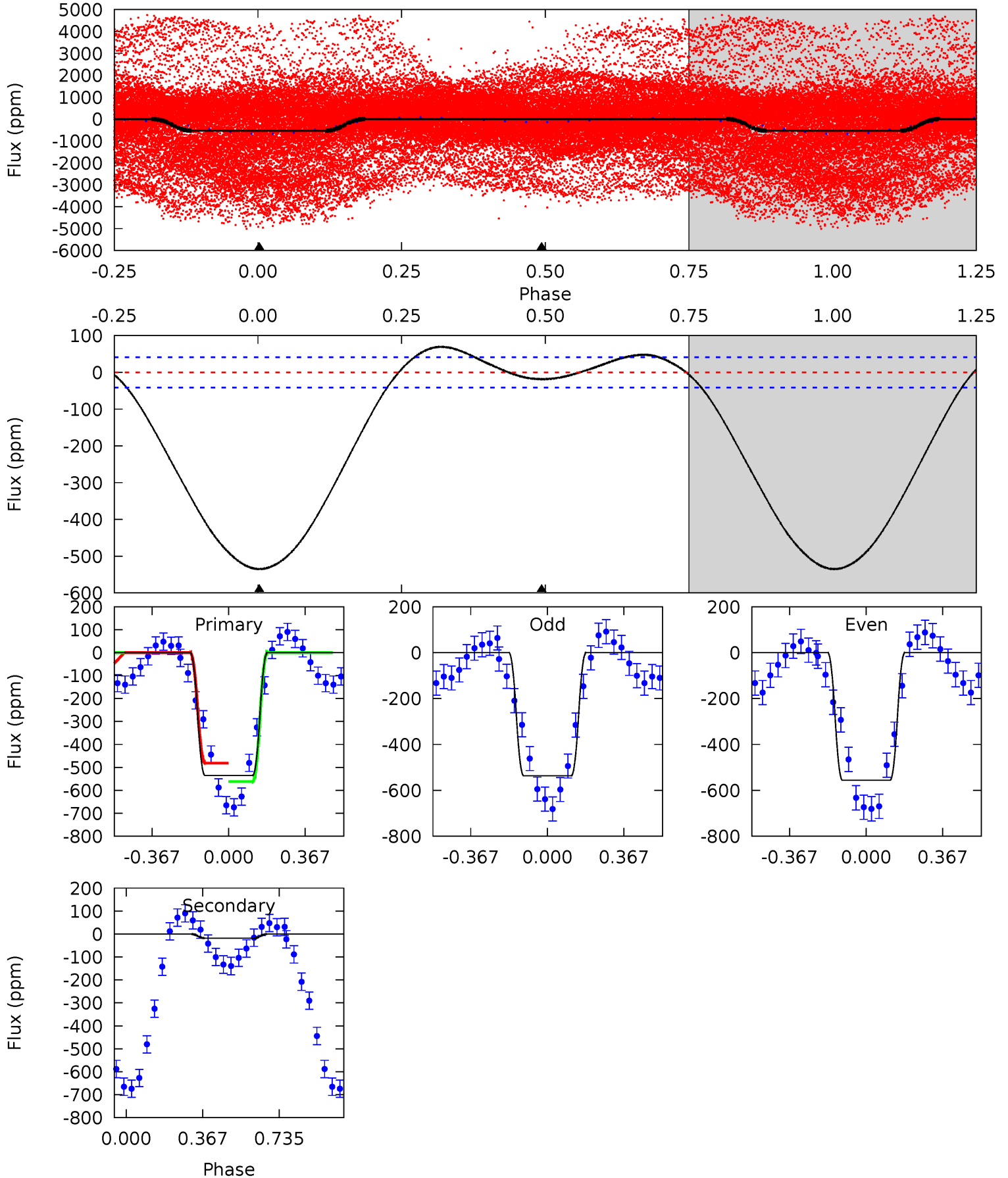
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.70	2.04	0	0	4.21	0.65	0.21	3.70	3.70	2.04	2.04	1.34	4.01	0.28	2.90



Alt Model-Shift Uniqueness Test

011598201-01, P = 0.542360 Days, E = 131.337833 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.8	1.93	0	0	4.28	0.90	2.44	55.8	55.8	1.93	1.93	1.02	1.32	0.12	4.31



Stellar Parameters For KIC 011598201

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5632^{+167}_{-150}	$4.491^{+0.125}_{-0.125}$	$-0.720^{+0.300}_{-0.300}$	$0.794^{+0.136}_{-0.112}$	$0.712^{+0.093}_{-0.035}$	$2.006^{+1.063}_{-0.694}$
	+3%/-3%	+3%/-3%	+42%/-42%	+17%/-14%	+13%/-5%	+53%/-35%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011598201-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 2	$0.58^{+0.07}_{-0.07}$	2881^{+143}_{-147}	3182^{+337}_{-697}	$0.734^{+0.414}_{-0.370}$
Alt.	-19 ± 10	$1.48^{+0.17}_{-0.14}$	2870^{+168}_{-148}	3018^{+368}_{-5103}	$0.611^{+0.388}_{-0.327}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

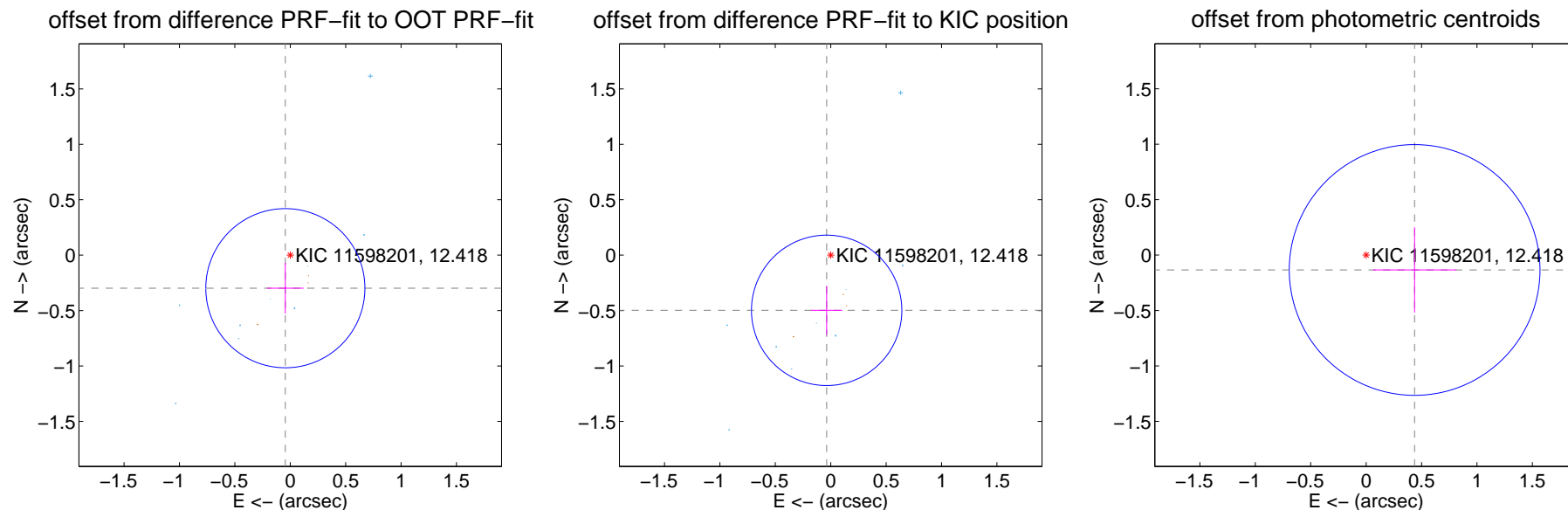
DV Centroid Data

Supplemental centroid analysis for 011598201-01. Kepler magnitude: 12.42. Transit SNR 8.81

There are 9 quarters with good PRF difference image offsets

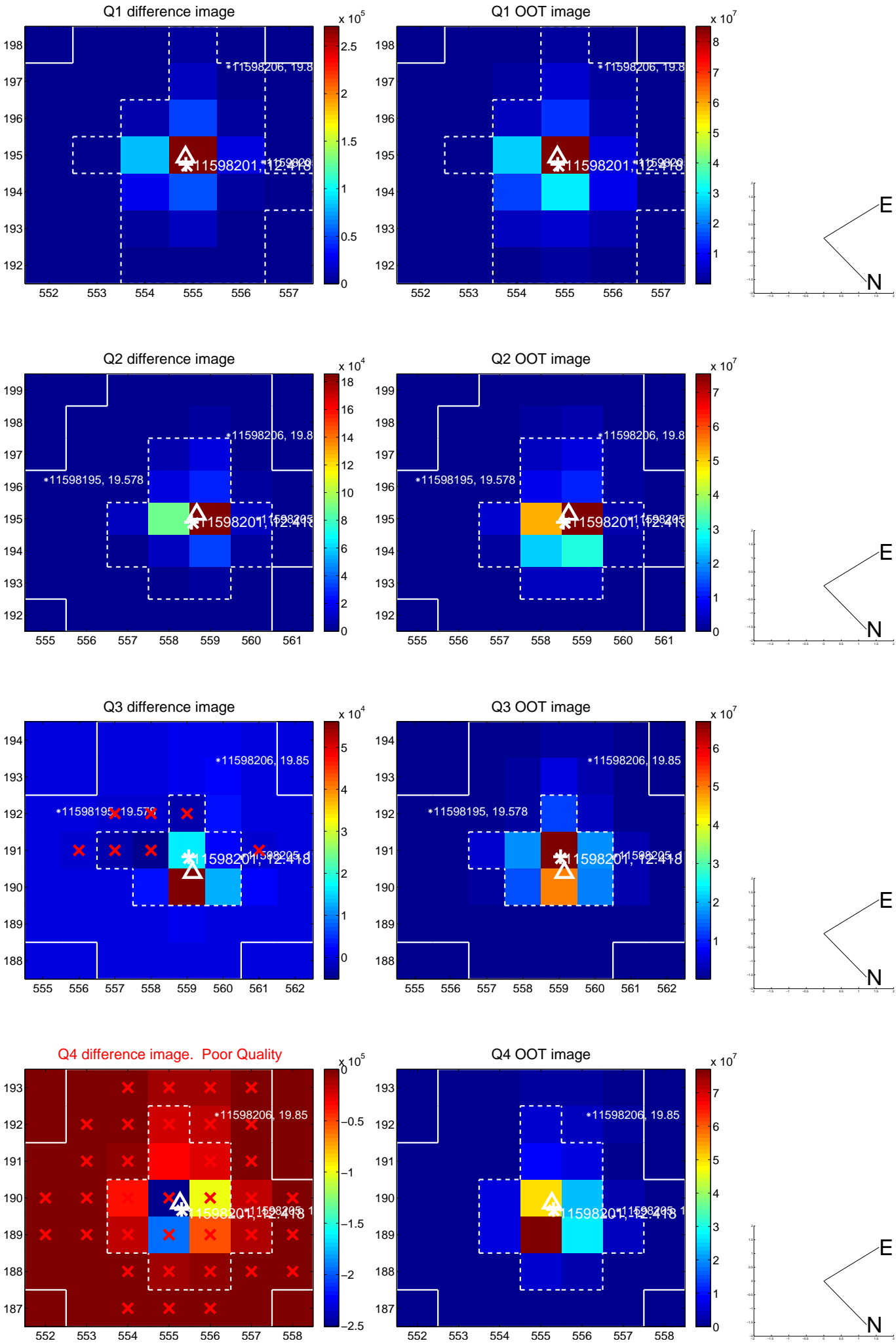
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.302 ± 0.239	1.26	0.044 ± 0.164	-0.298 ± 0.229
PRF-fit source offset from KIC position	0.499 ± 0.226	2.21	0.037 ± 0.141	-0.498 ± 0.222
photometric centroid source offset	0.46 ± 0.38	1.21	-0.44 ± 0.38	-0.13 ± 0.38

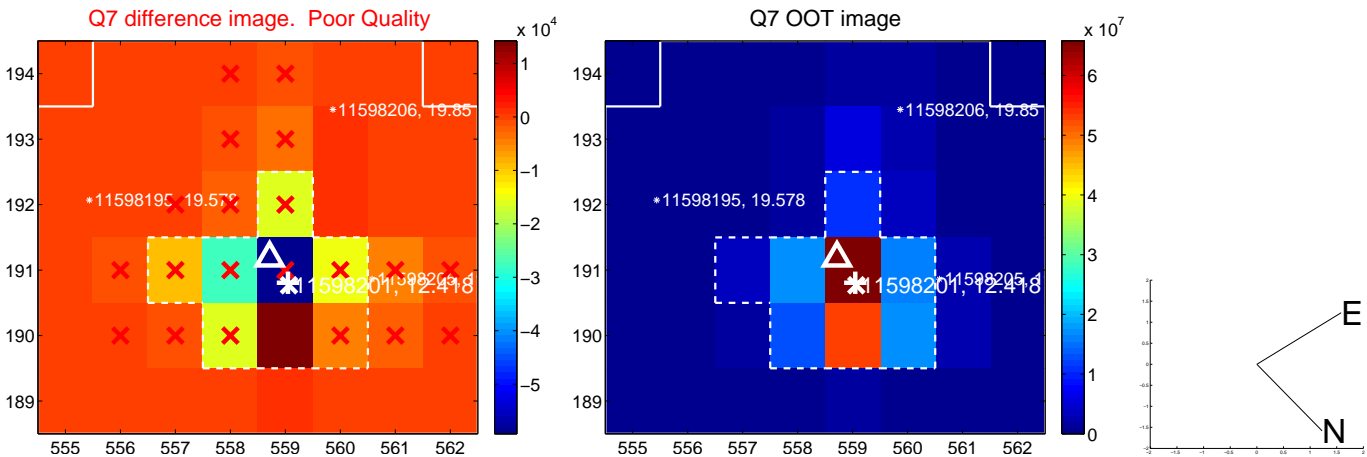
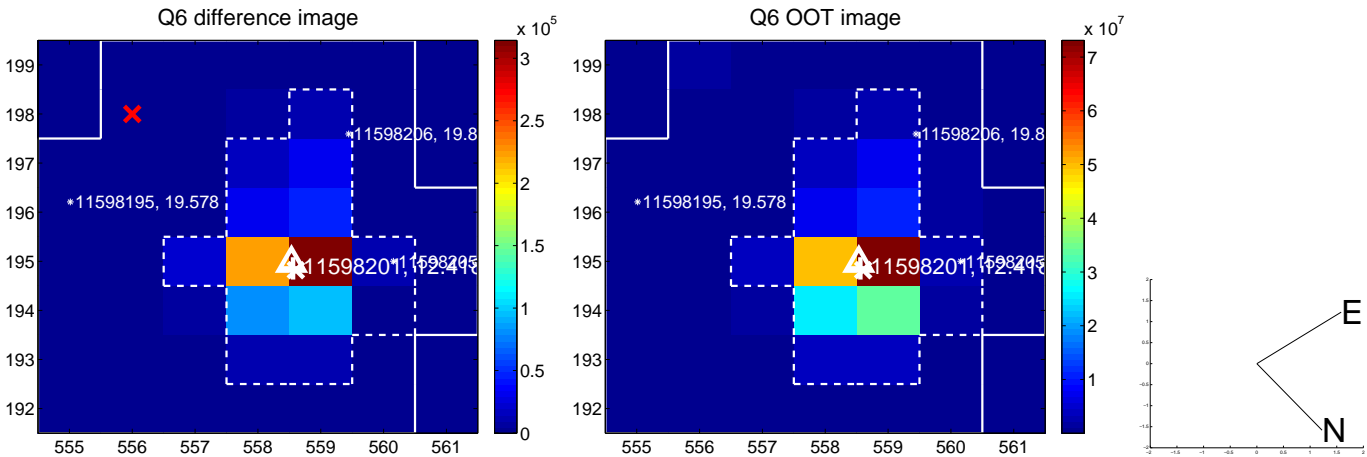
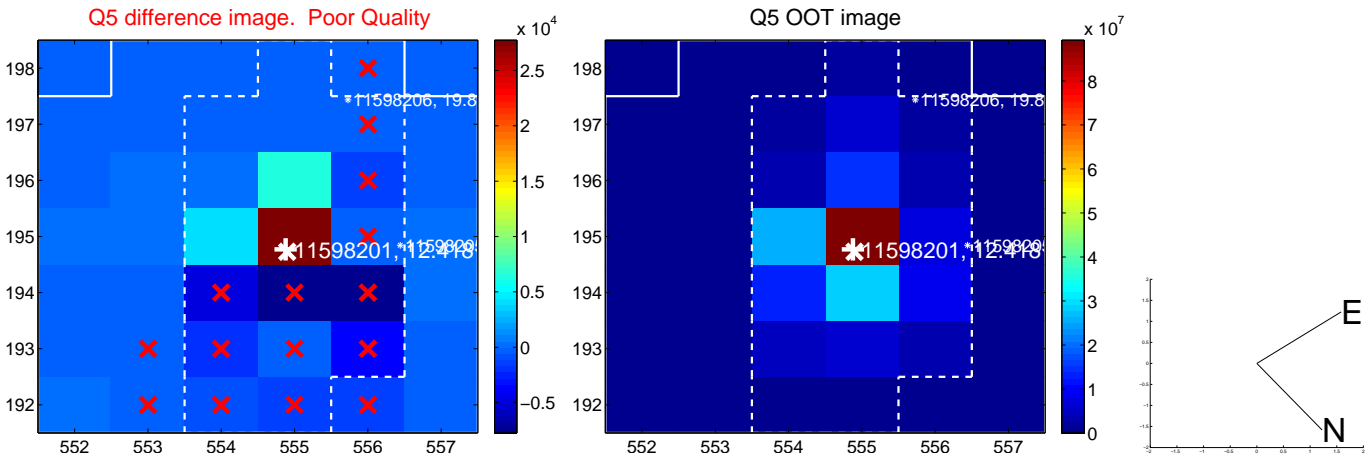


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

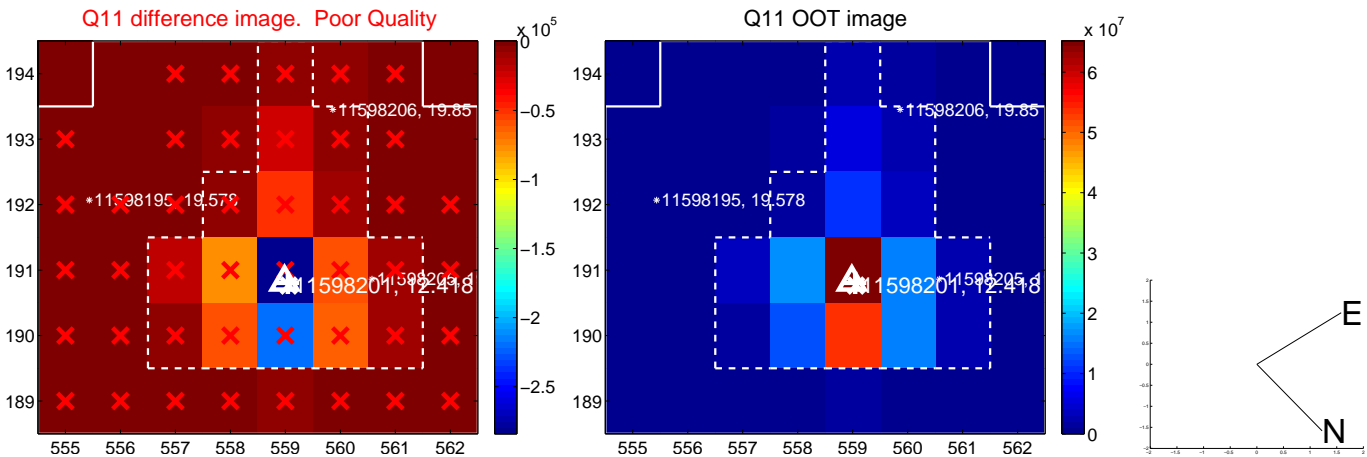
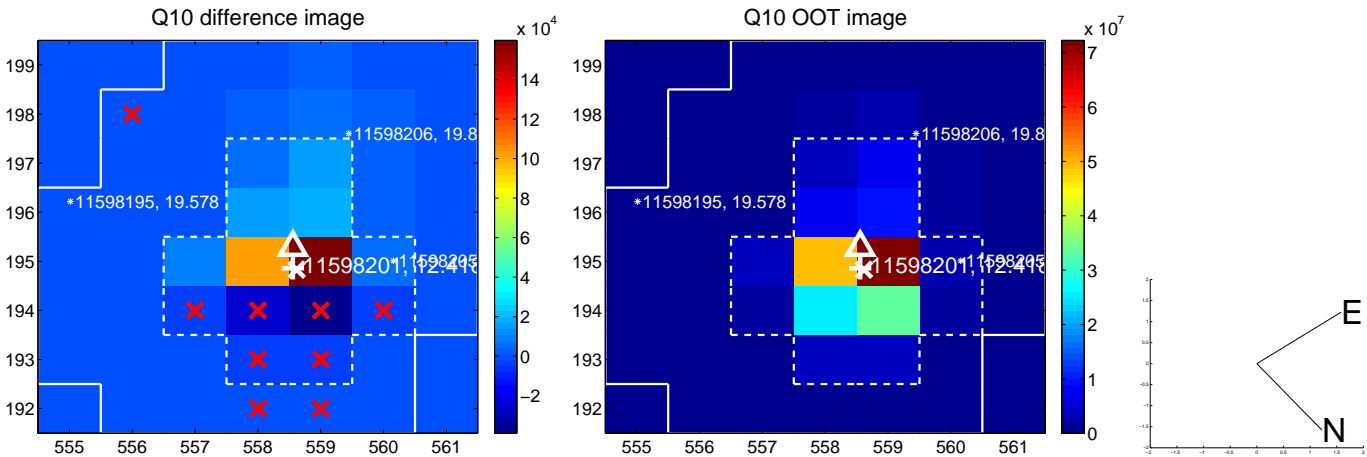
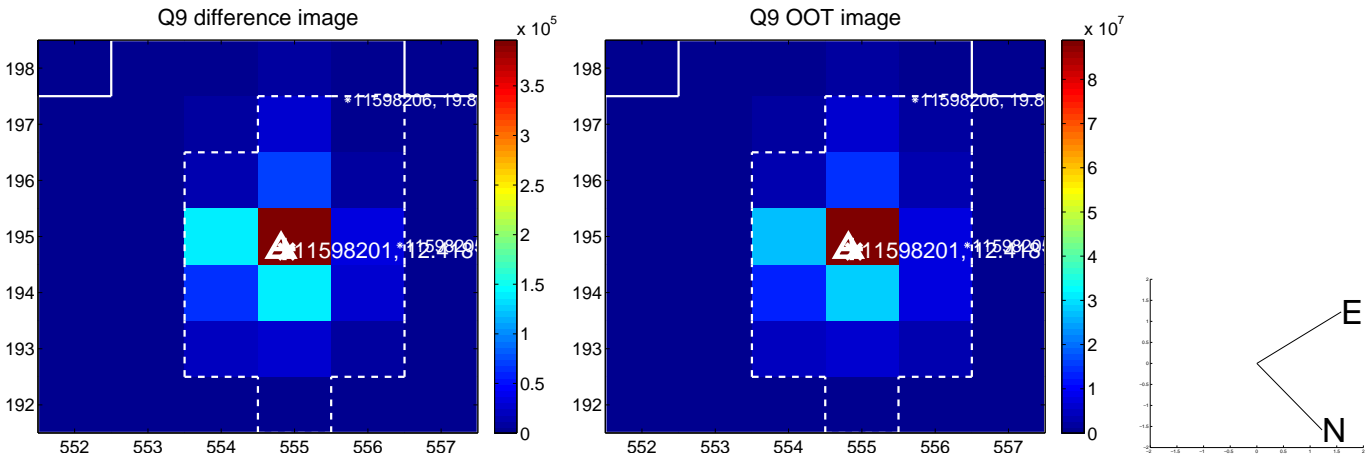
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



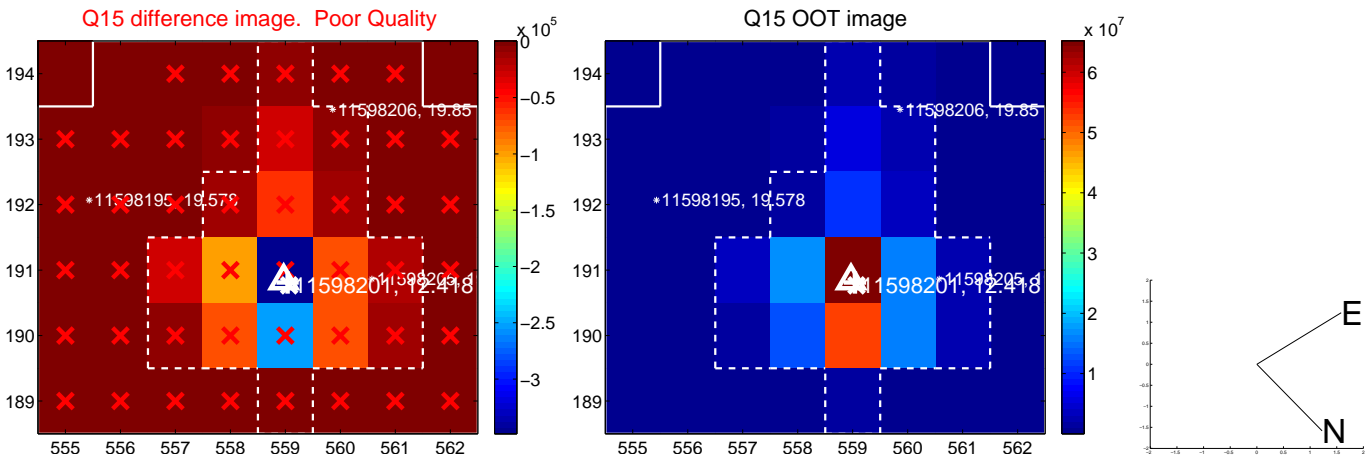
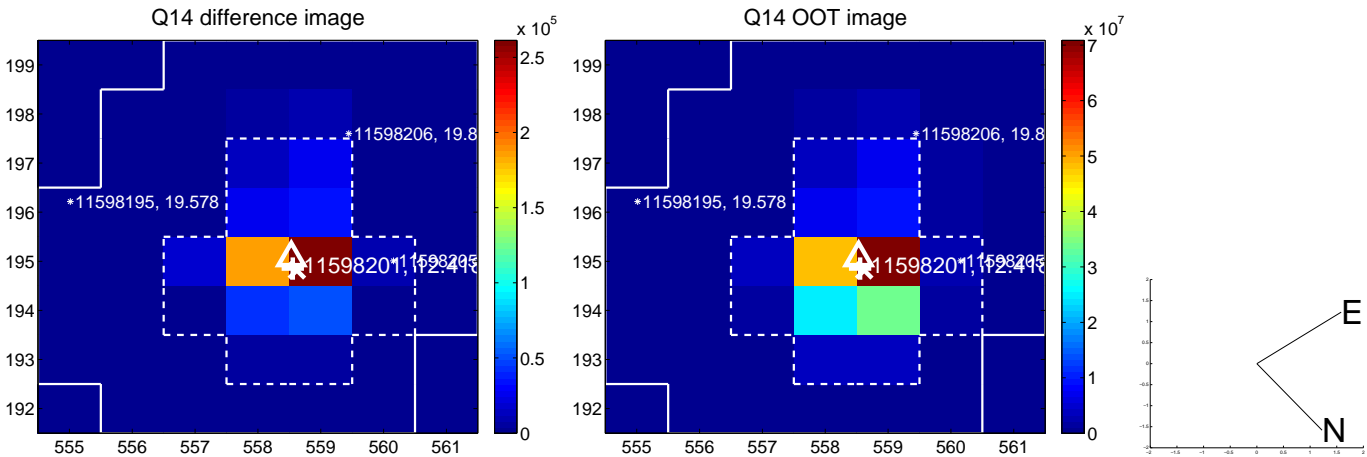
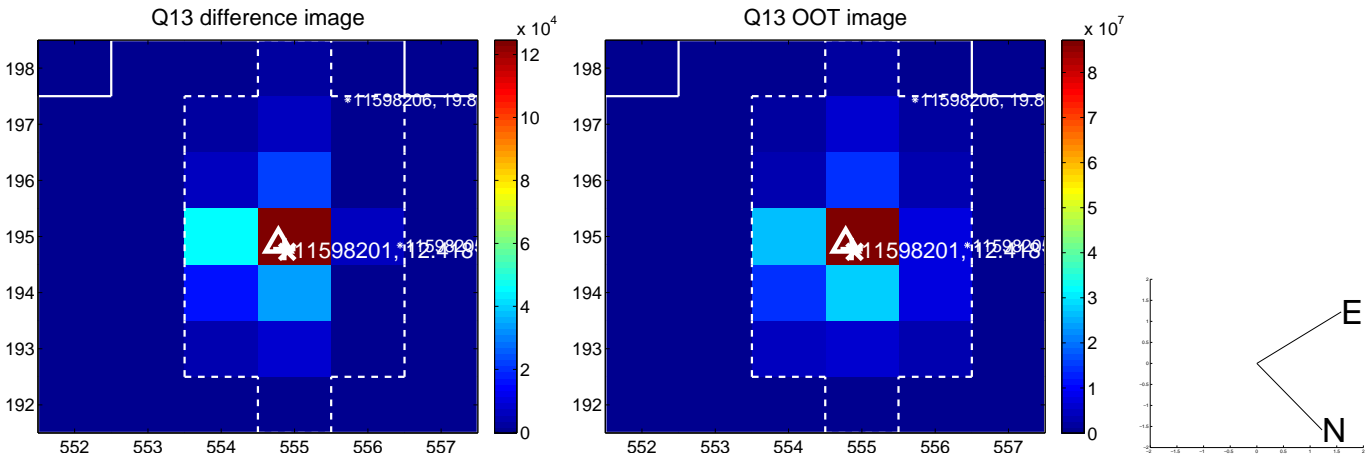
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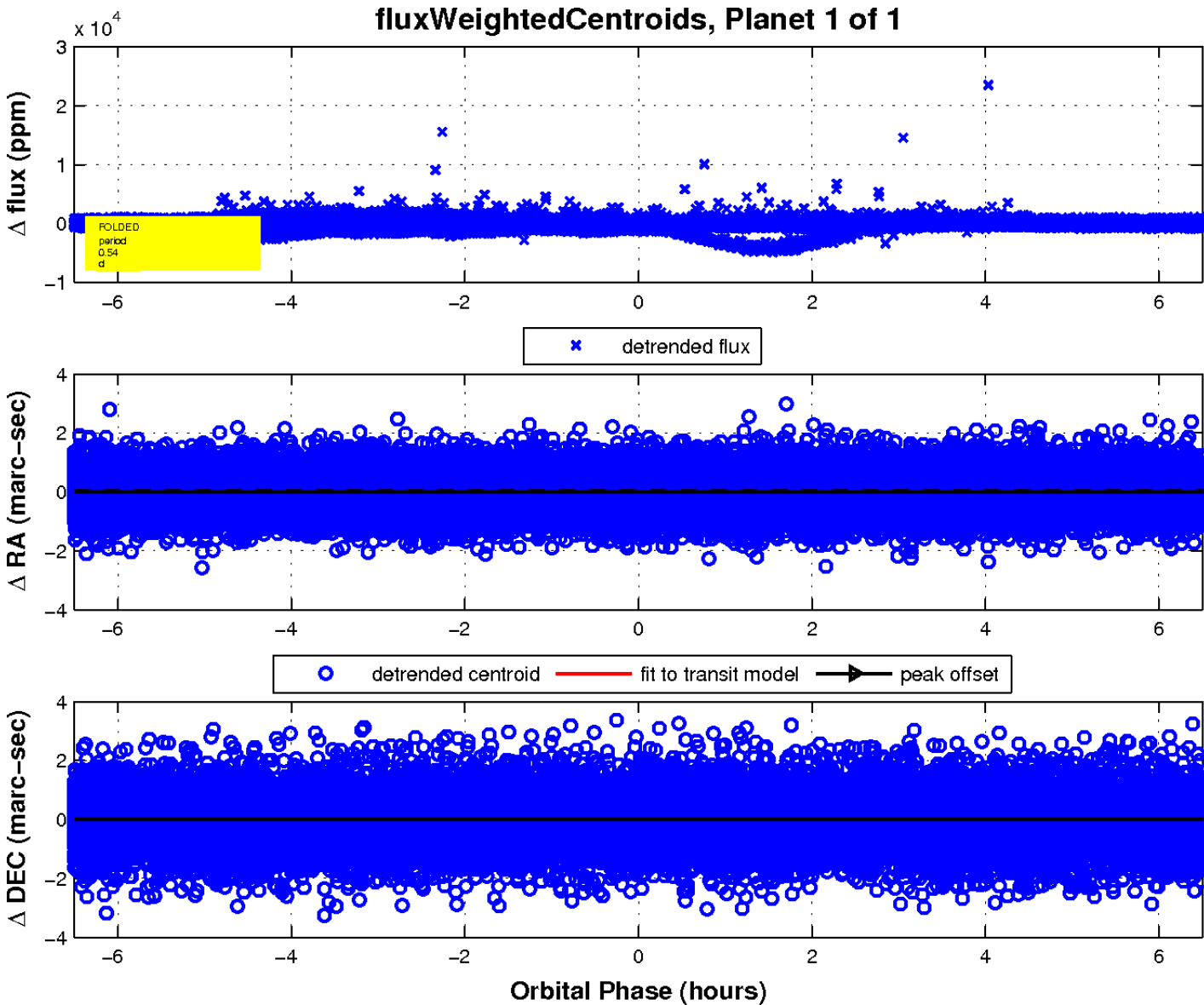
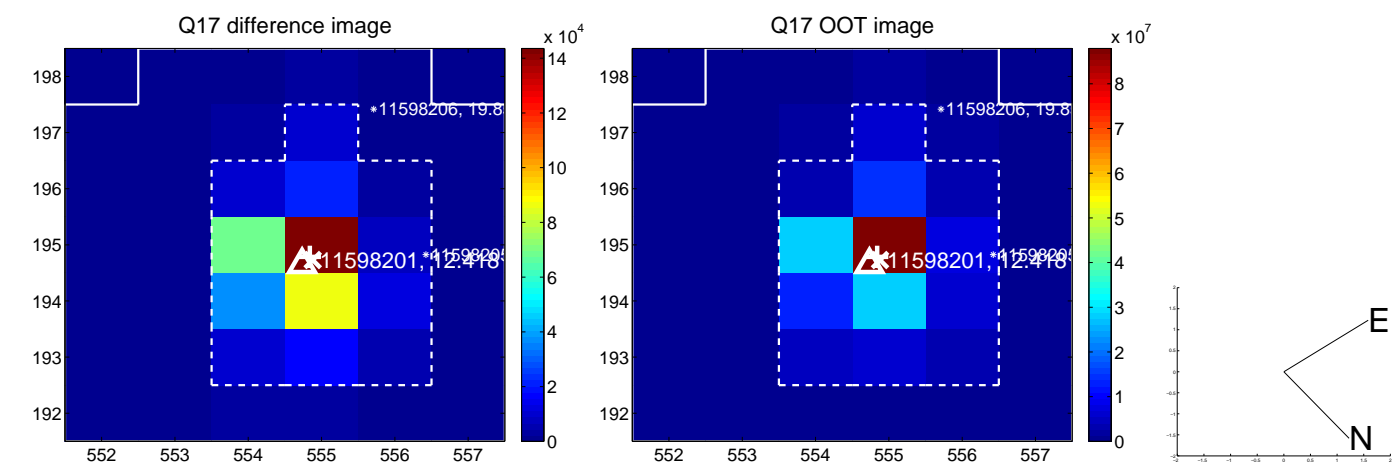
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UKIRT Image

Declination

