

KIC 011068630

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})
011068630-01	OBS	7404.01	1.817065	131.907645	155.2	1.125	8.8	9.3	0.96	5808	1.44	1059.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011068630-01	OBS	PC	0.91	0	0	0	0	NO_COMMENT

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

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

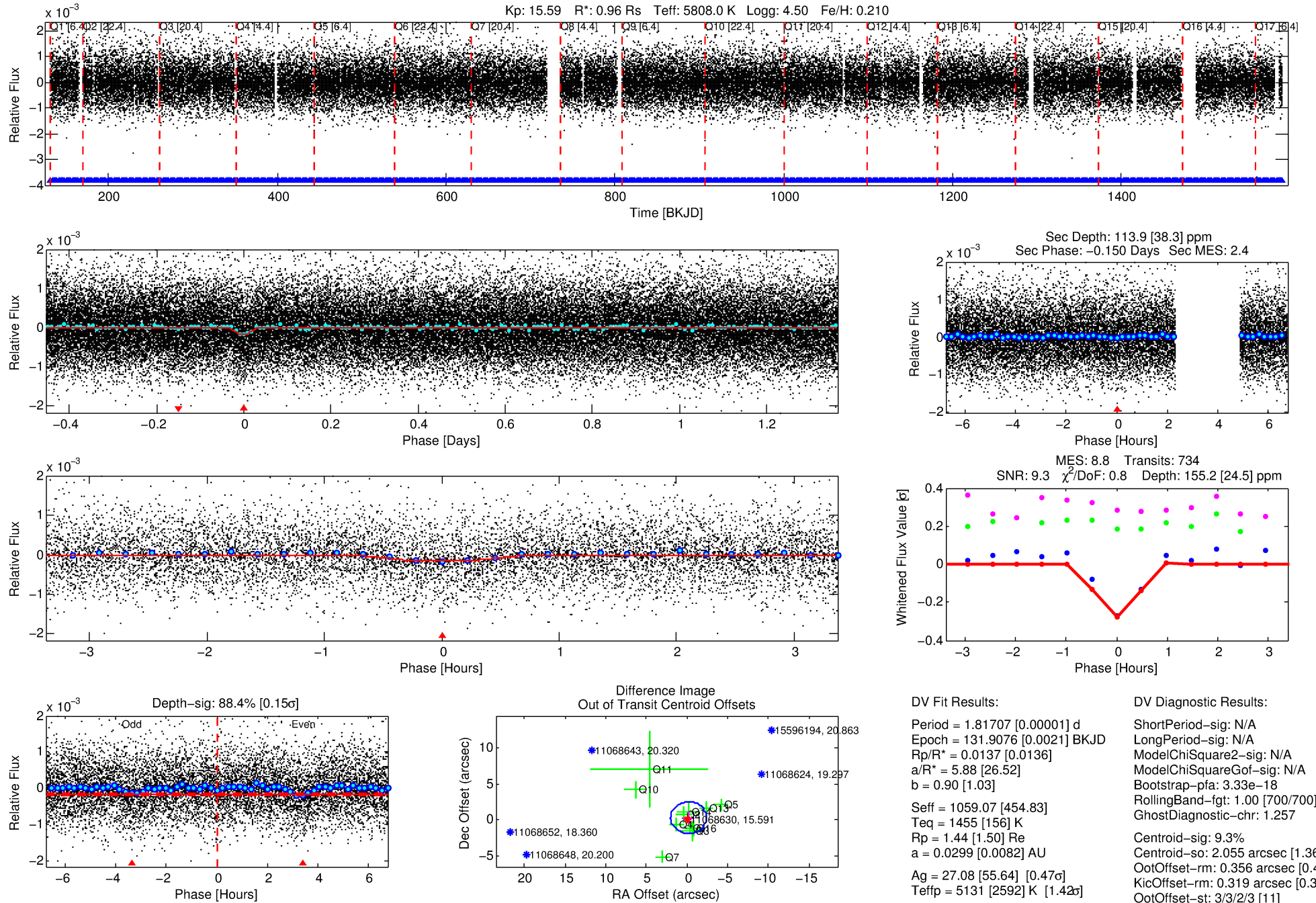
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011068630-01

No Significant Match Found

DV One-Page Summary

KIC: 11068630 Candidate: 1 of 1 Period: 1.817 d
KOI: K07404.01 Corr: 0.901



DV Fit Results:

Period = 1.81707 [0.00001] d
Epoch = 131.9076 [0.0021] BKJD
Rp/R* = 0.0137 [0.0136]
a/R* = 5.88 [26.52]
b = 0.90 [1.03]
Seff = 1059.07 [454.83]
Teq = 1455 [156] K
Rp = 1.44 [1.50] Re
a = 0.0299 [0.0082] AU
Ag = 27.08 [55.64] [0.47 σ]
Teffp = 5131 [2592] K [1.42 σ]

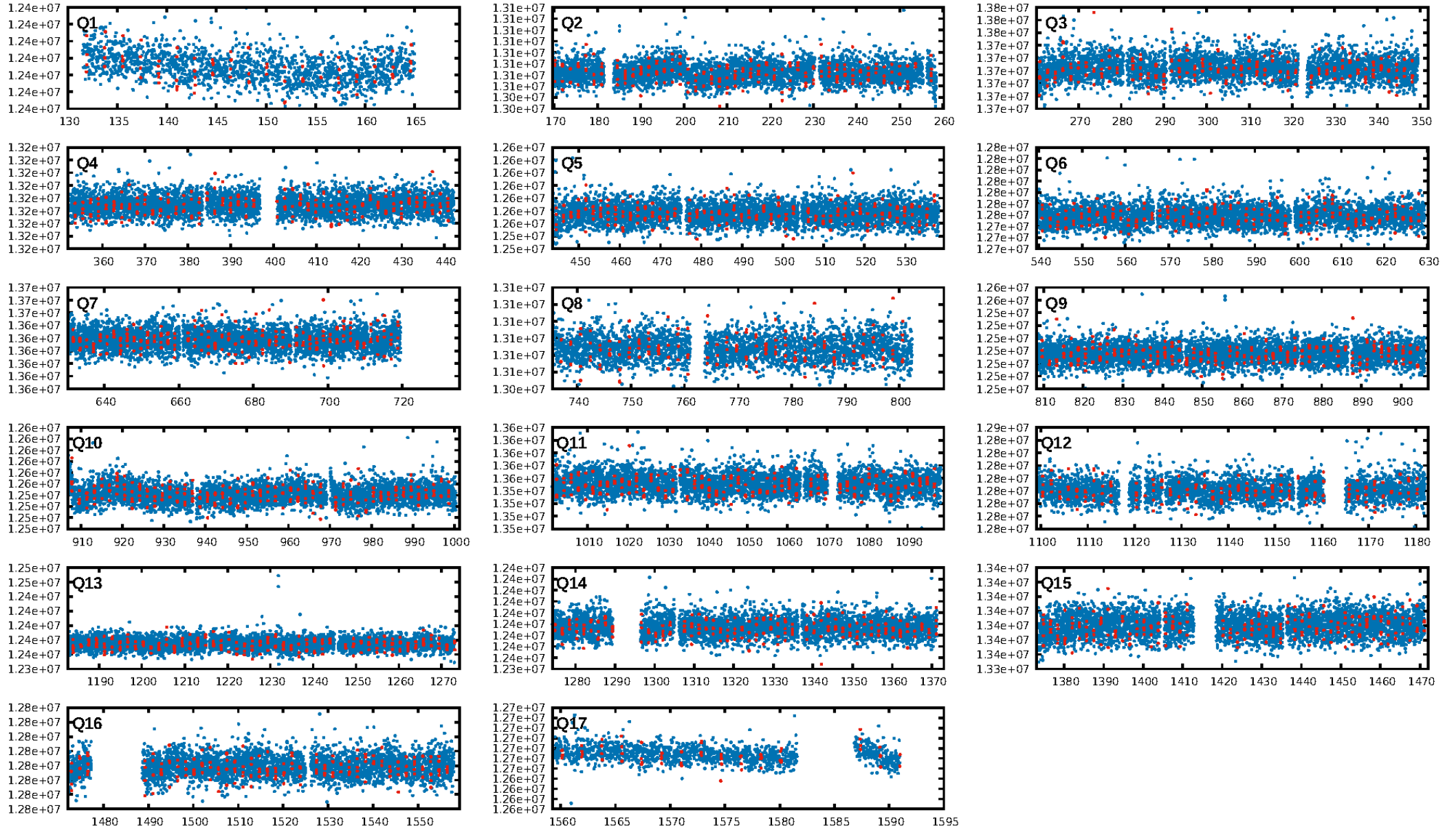
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.33e-18
RollingBand-fgt: 1.00 [700/700]
GhostDiagnostic-chr: 1.257
Centroid-sig: 9.3%
Centroid-so: 2.055 arcsec [1.36 σ]
OotOffset-rm: 0.356 arcsec [0.48 σ]
KicOffset-rm: 0.319 arcsec [0.39 σ]
OotOffset-st: 3/3/2/3 [11]
KicOffset-st: 3/3/2/3 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 1.00 [17/17]

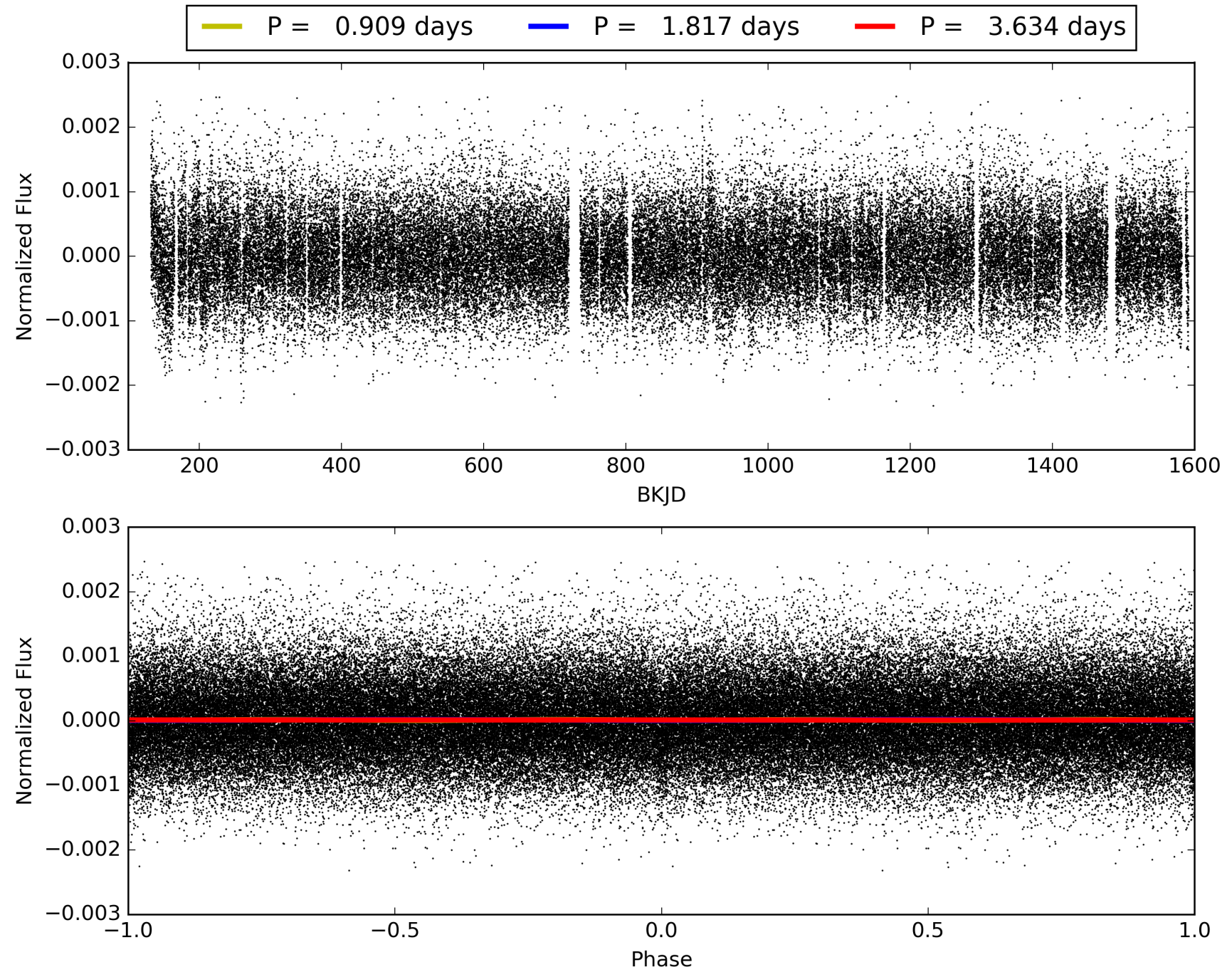
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 02:00:12 Z

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

TCE 011068630-01, PDC Light Curves

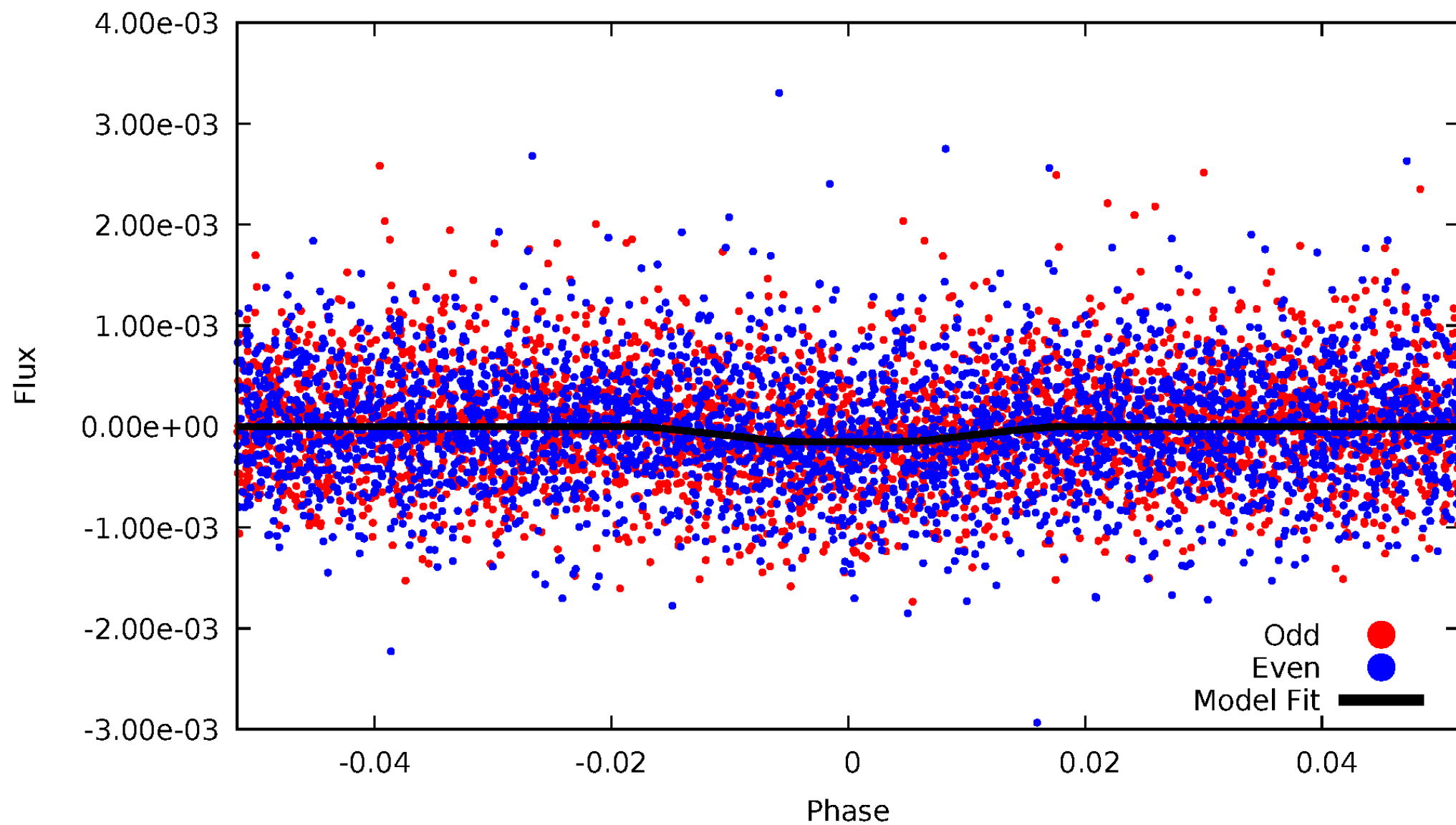


TCE 011068630-01



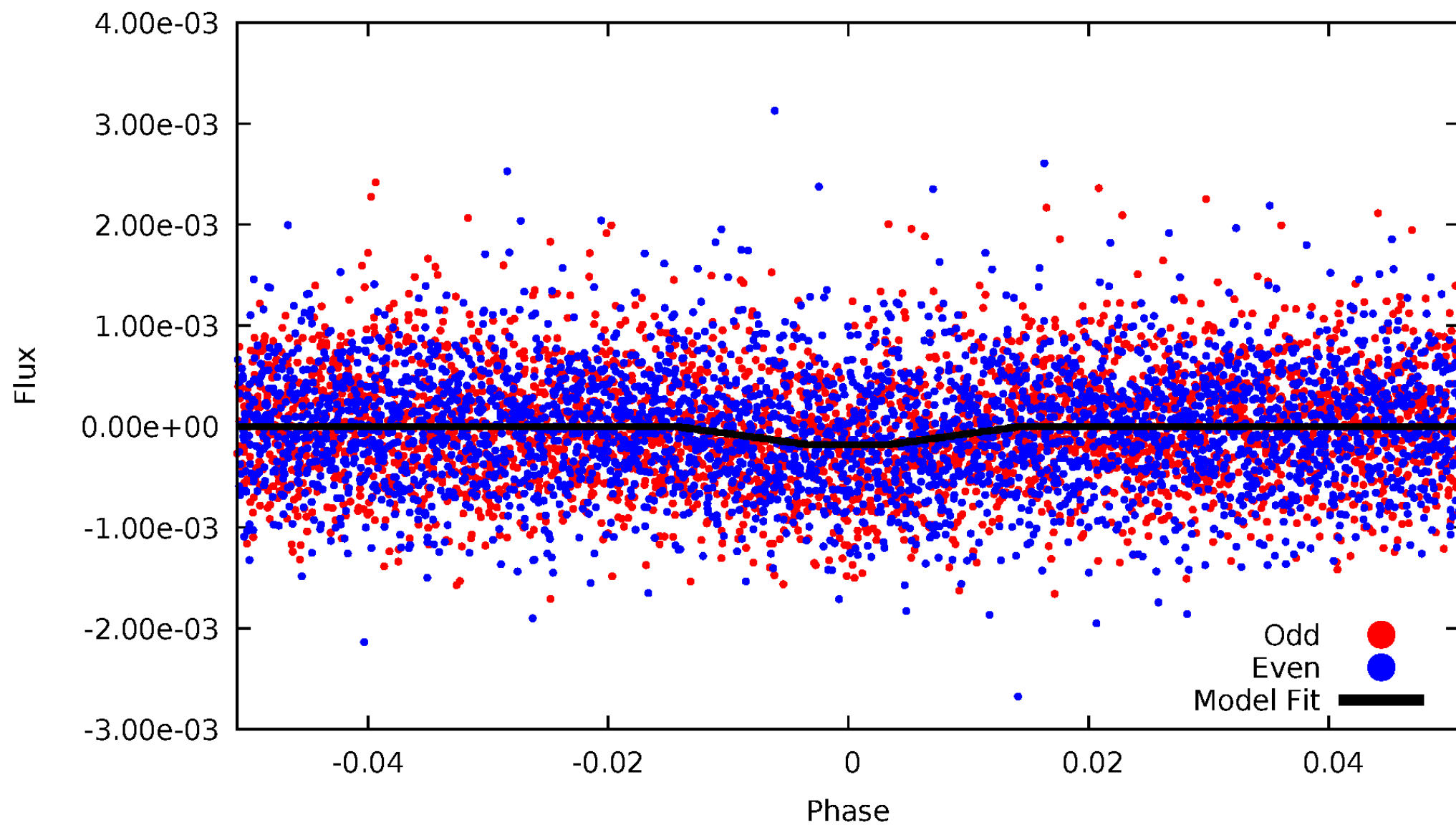
DV Odd/Even

TCE 011068630-01



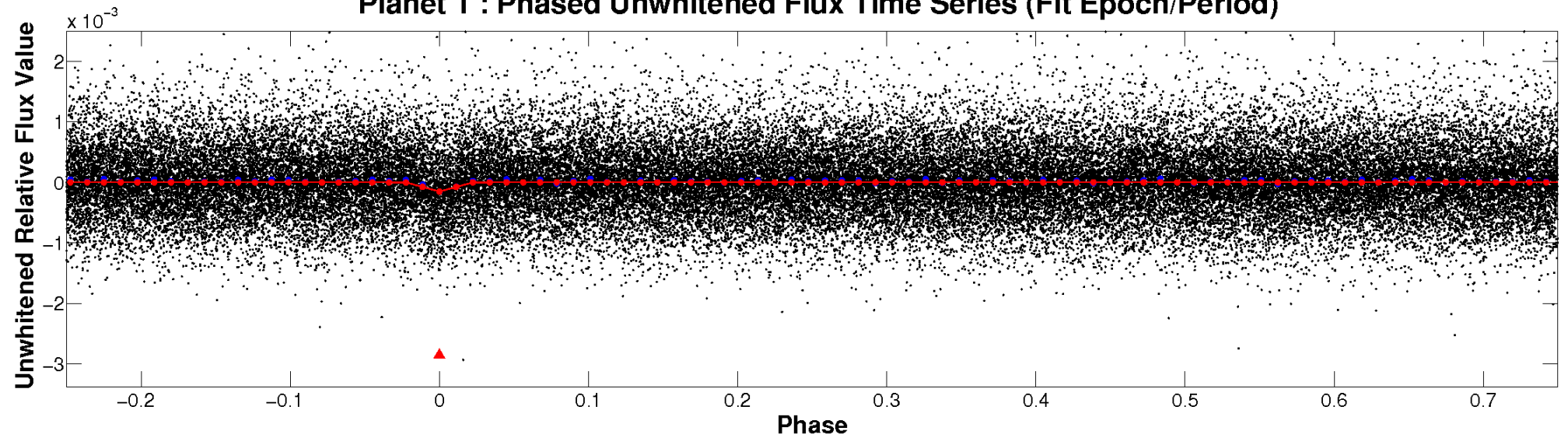
ALT Odd/Even

TCE 011068630-01

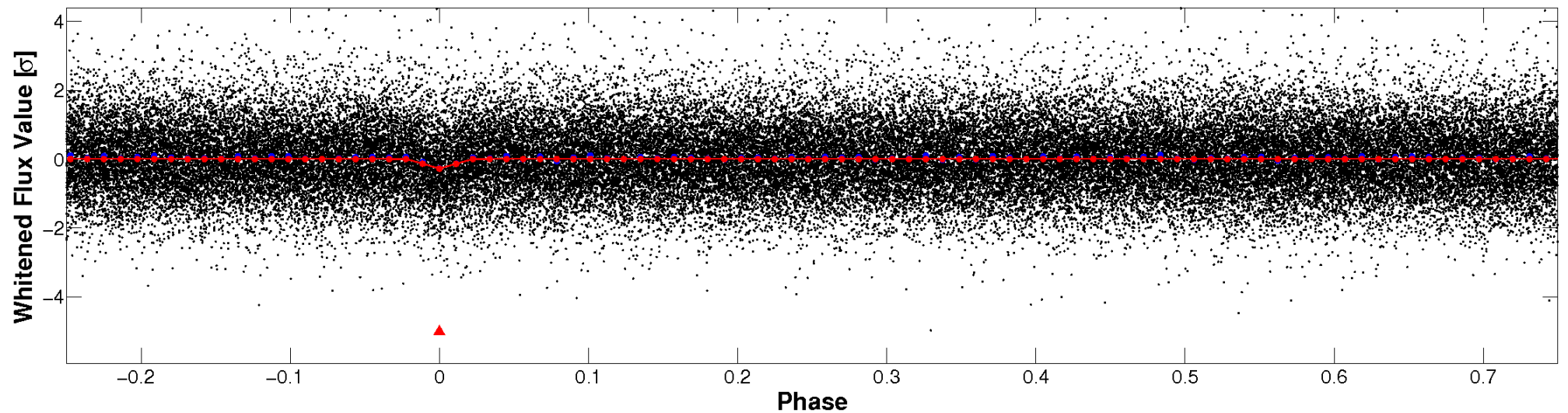


Non-Whitened Vs. Whitened Light Curve

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

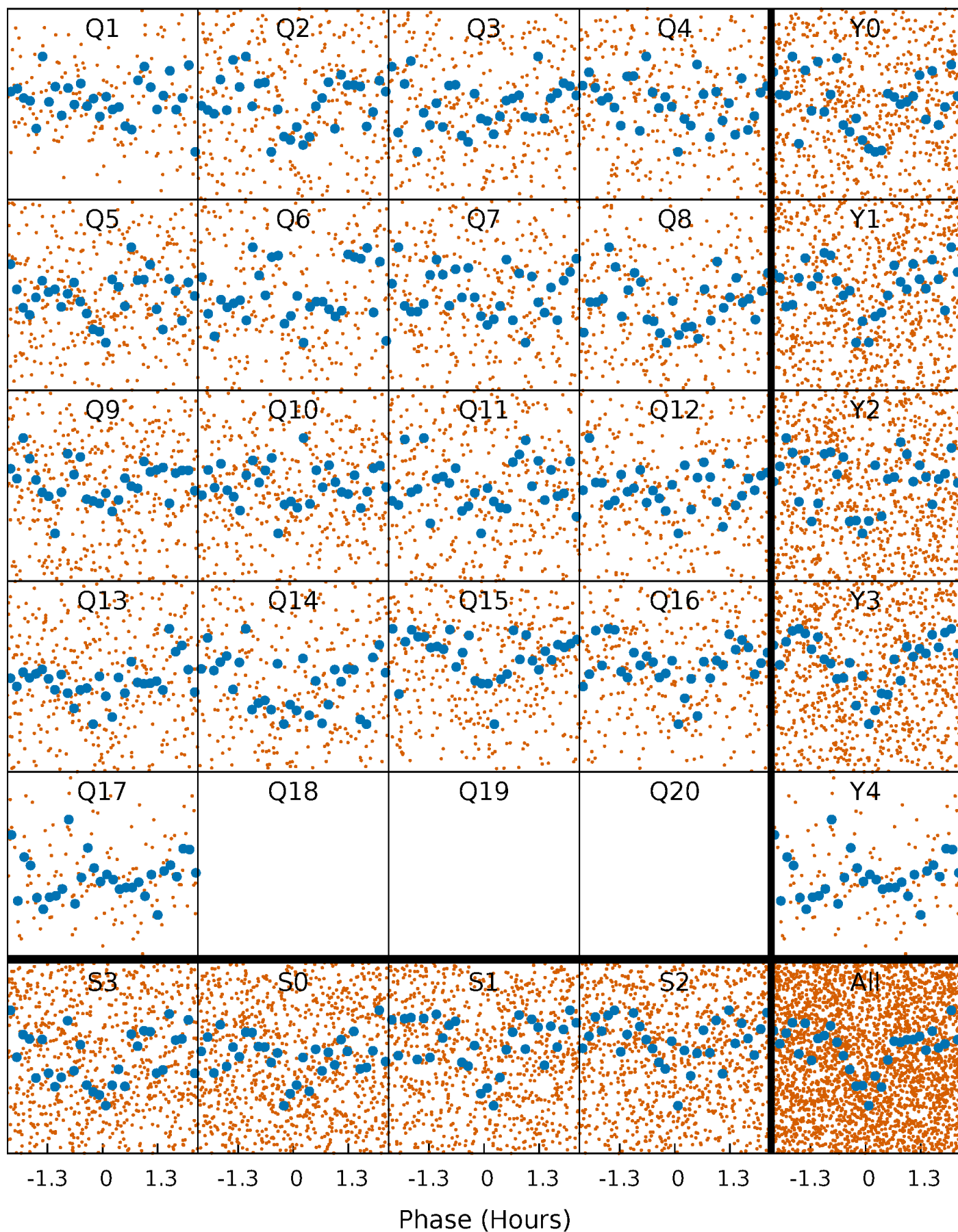


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



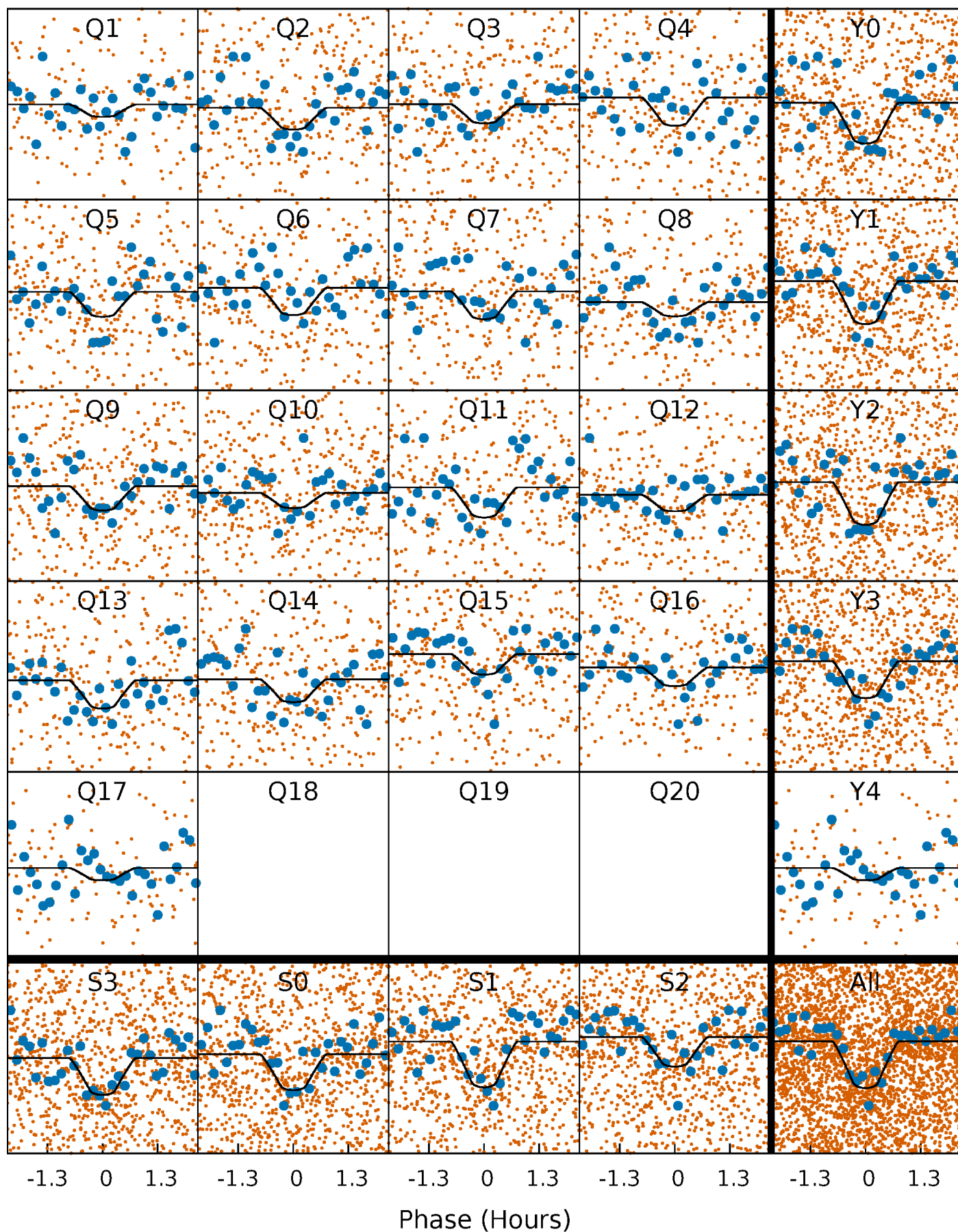
PDC Quarter-Phased Transit Curves

TCE 011068630-01 P= 1.817065 Days $T_0=131.907645$ (BKJD)



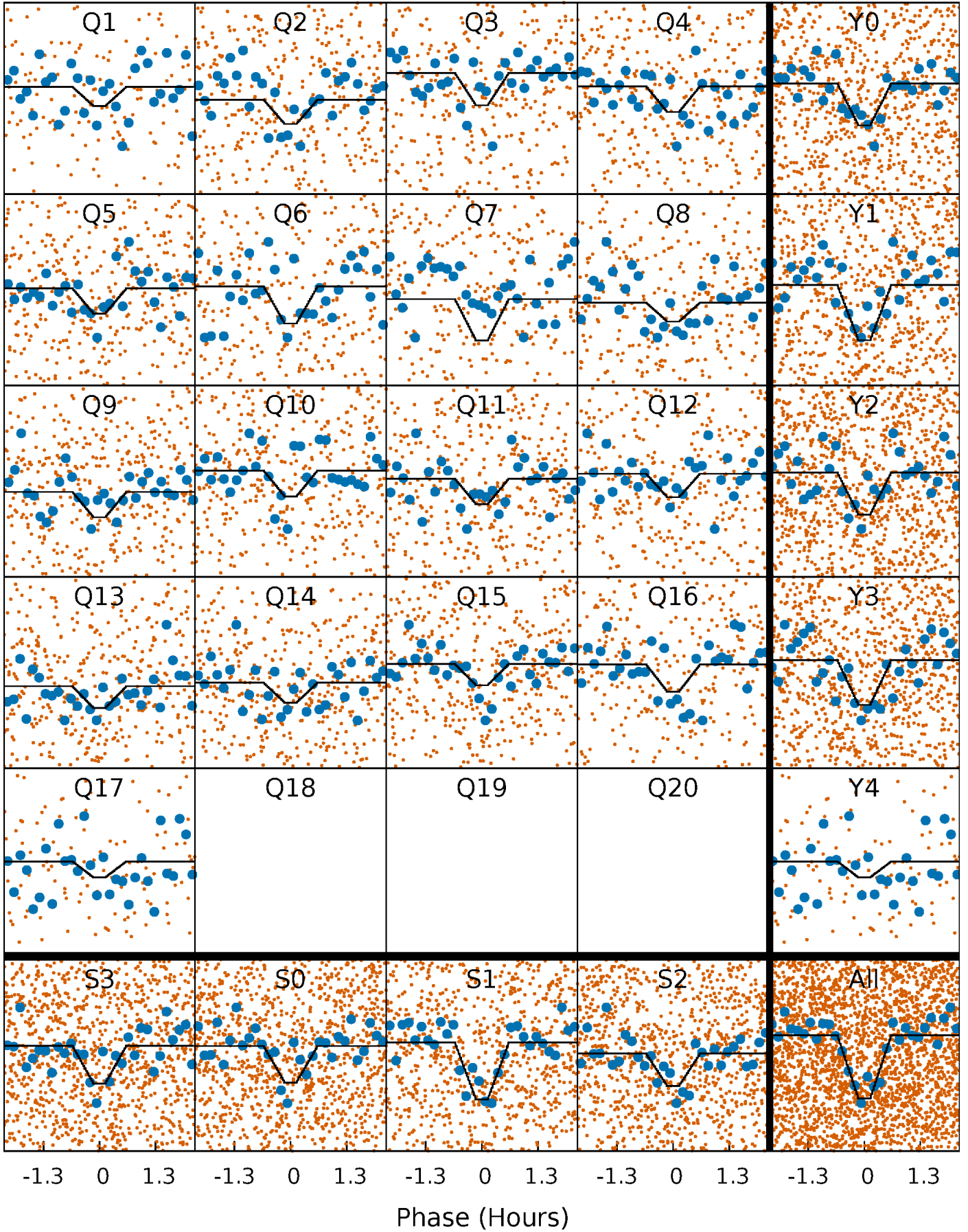
DV Quarter-Phased Transit Curves

TCE 011068630-01 P= 1.817065 Days $T_0=131.907645$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

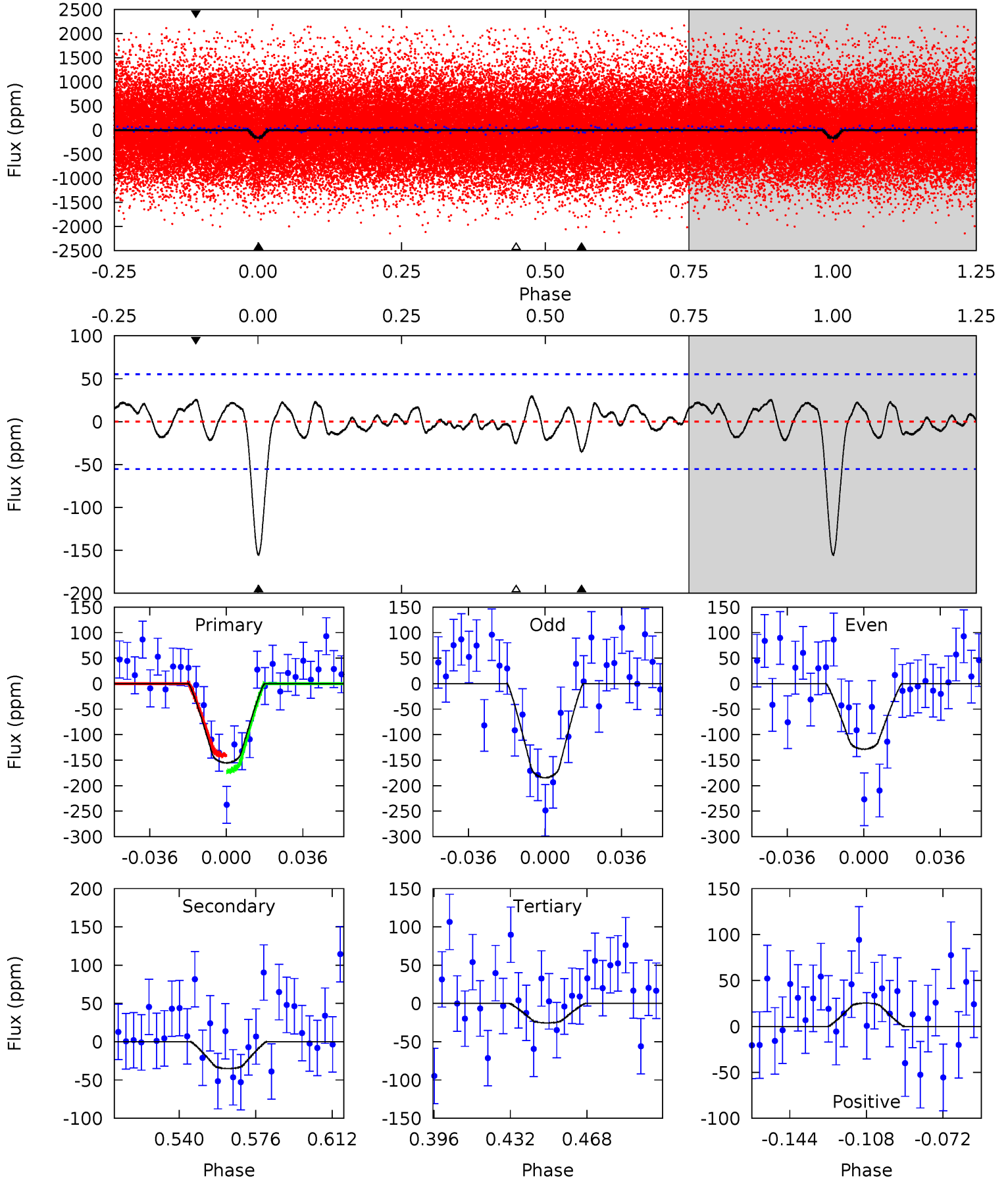
TCE 011068630-01 P= 1.817070 Days $T_0=131.907805$ (BKJD)



DV Model-Shift Uniqueness Test

011068630-01, P = 1.817065 Days, E = 130.090580 Days

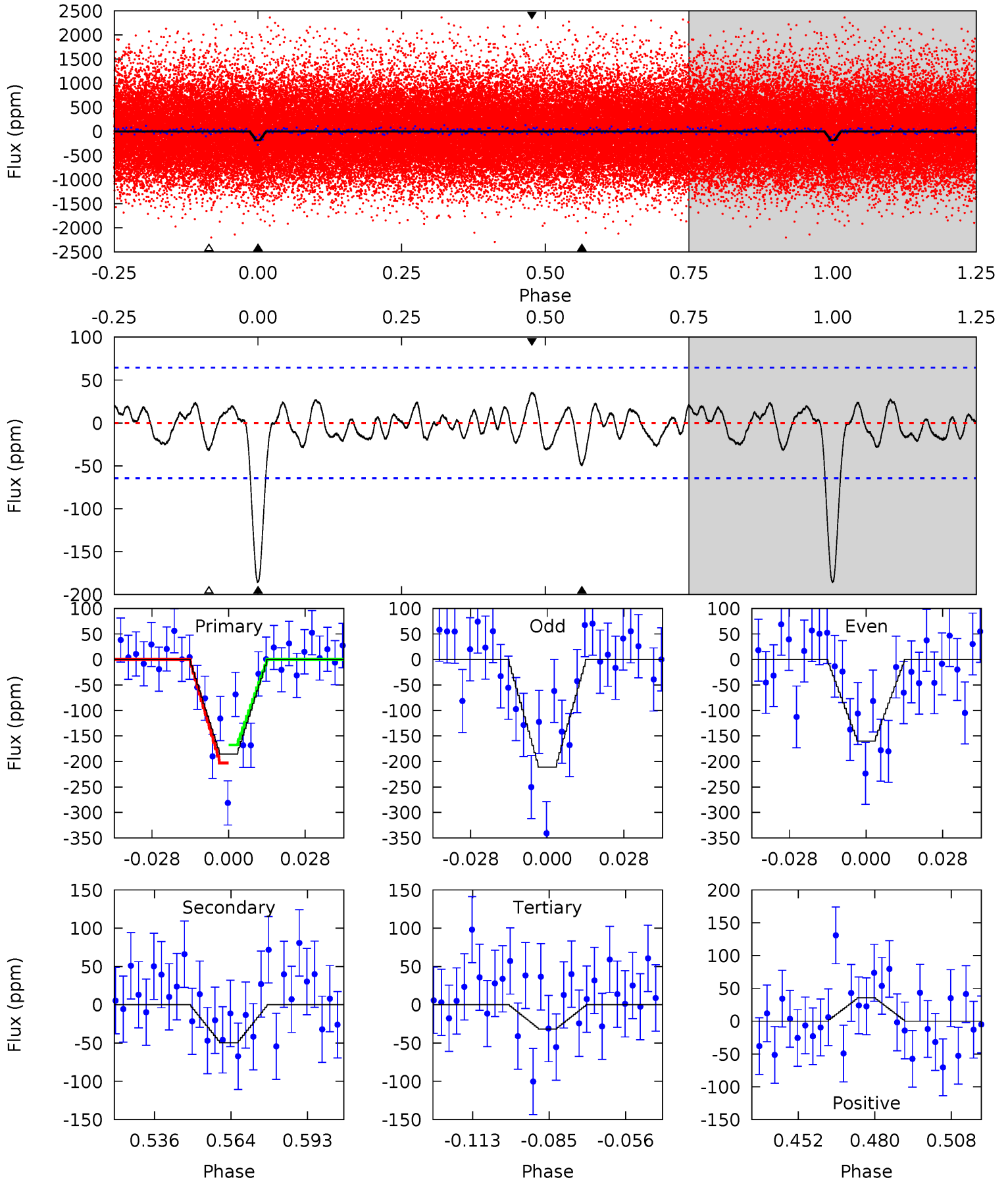
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	3.04	2.20	2.20	4.77	2.10	1.05	11.2	11.2	0.84	0.84	2.42	0.88	0.16	1.33



Alt Model-Shift Uniqueness Test

011068630-01, P = 1.817070 Days, E = 130.090735 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	3.72	2.36	2.65	4.82	2.19	1.07	11.5	11.2	1.36	1.07	1.90	0.92	0.16	1.32



Stellar Parameters For KIC 011068630

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5808^{+162}_{-223}	$4.503^{+0.039}_{-0.221}$	$0.210^{+0.200}_{-0.300}$	$0.963^{+0.309}_{-0.096}$	$1.077^{+0.112}_{-0.150}$	$1.700^{+0.370}_{-0.935}$
	+3%/-4%	+1%/-5%	+95%/-143%	+32%/-10%	+10%/-14%	+22%/-55%
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 011068630-01 / KOI 7404.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-35 ± 12	$1.84^{+1.44}_{-1.13}$	2087^{+156}_{-109}	3780^{+1778}_{-739}	$4.913^{+28.998}_{-3.497}$
Alt.	-50 ± 13	$1.74^{+1.34}_{-1.12}$	2076^{+147}_{-99}	4132^{+2474}_{-849}	$7.827^{+54.499}_{-5.522}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

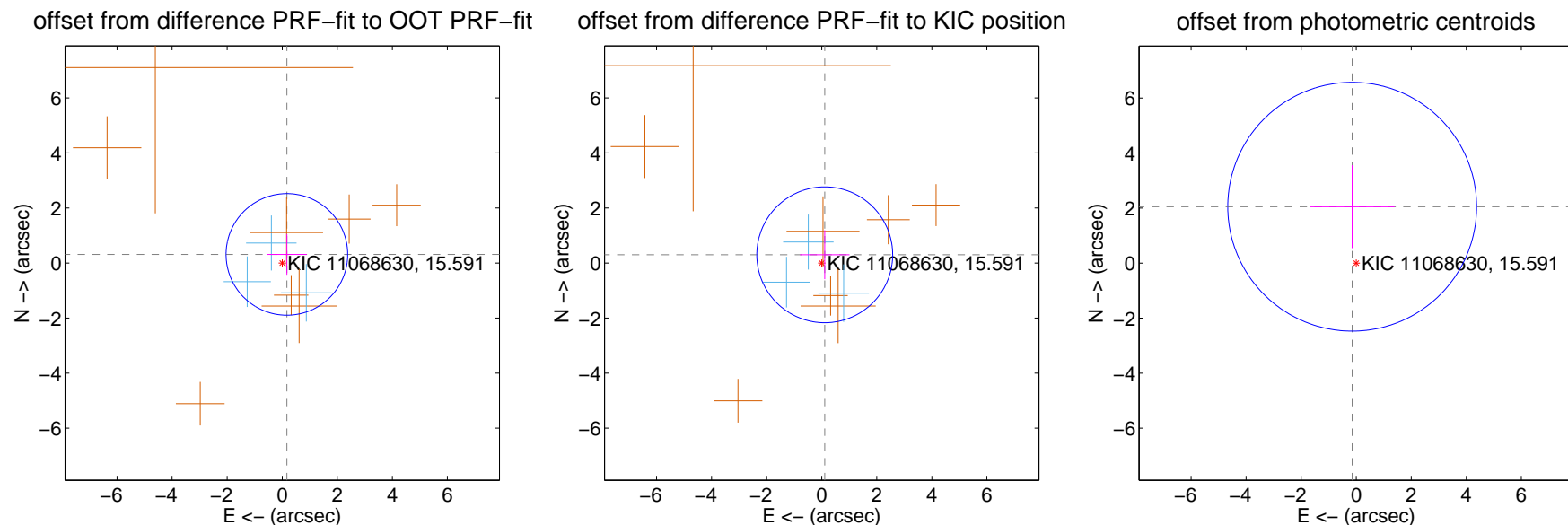
DV Centroid Data

Supplemental centroid analysis for 011068630-01. Kepler magnitude: 15.59. Transit SNR 9.27

There are 3 quarters with good PRF difference image offsets

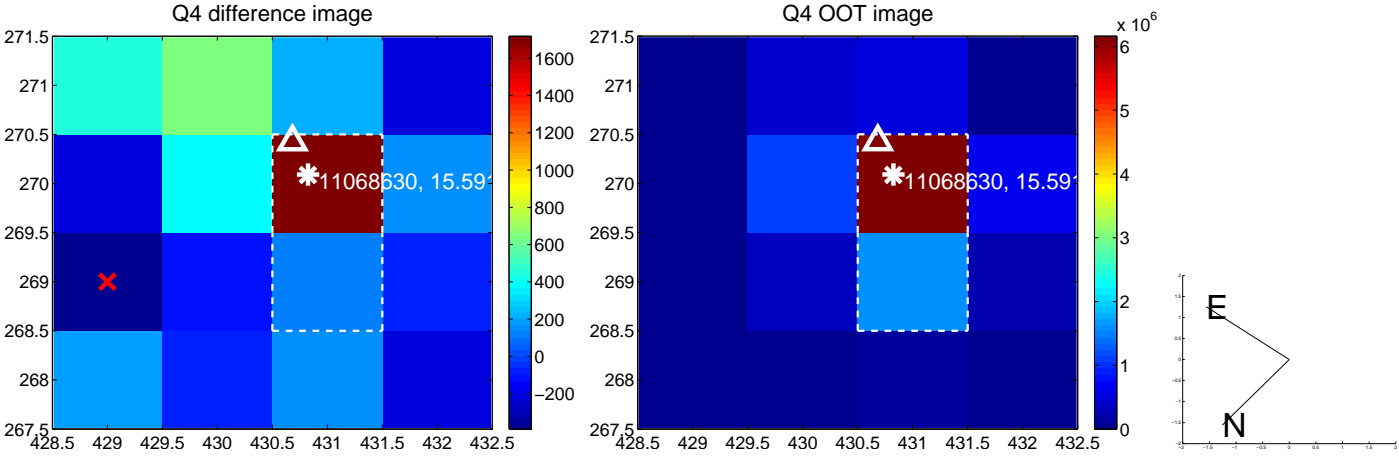
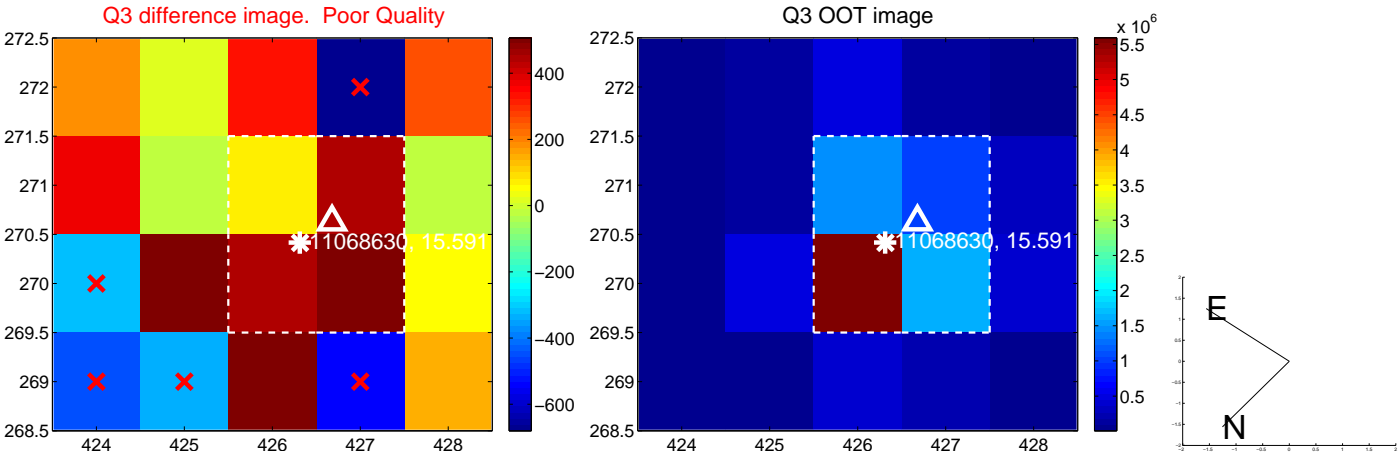
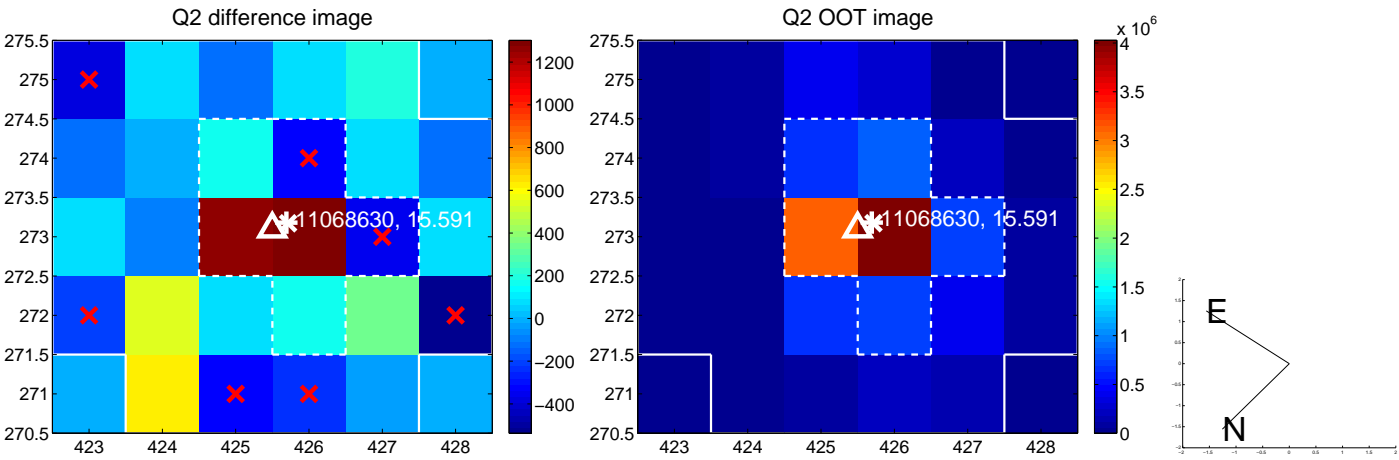
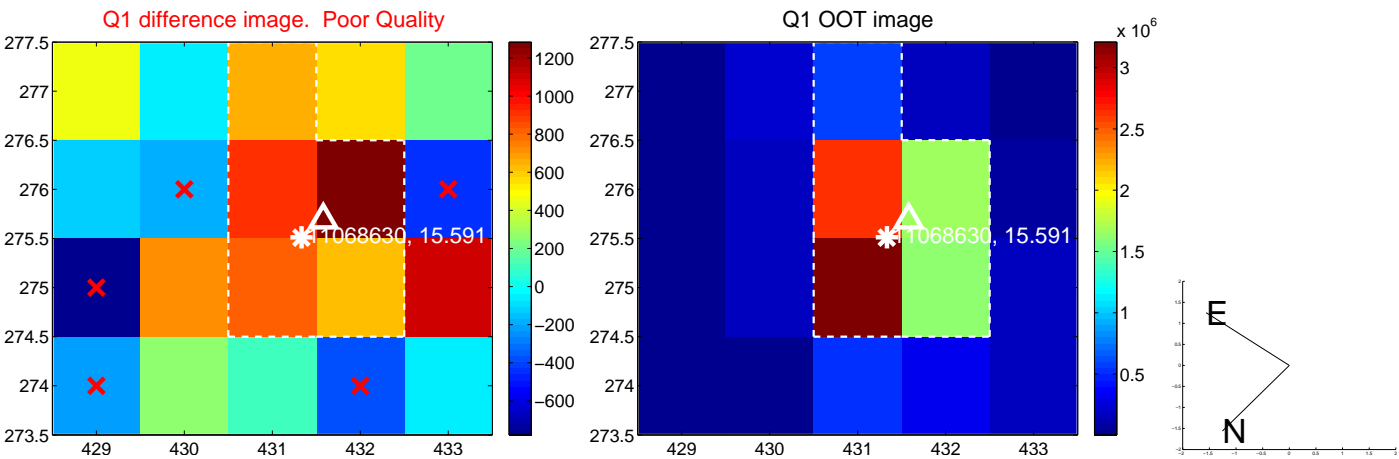
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.356 ± 0.736	0.48	-0.169 ± 0.725	0.313 ± 0.740
PRF-fit source offset from KIC position	0.319 ± 0.822	0.39	-0.109 ± 0.899	0.300 ± 0.888
photometric centroid source offset	2.05 ± 1.51	1.36	0.15 ± 1.54	2.05 ± 1.51

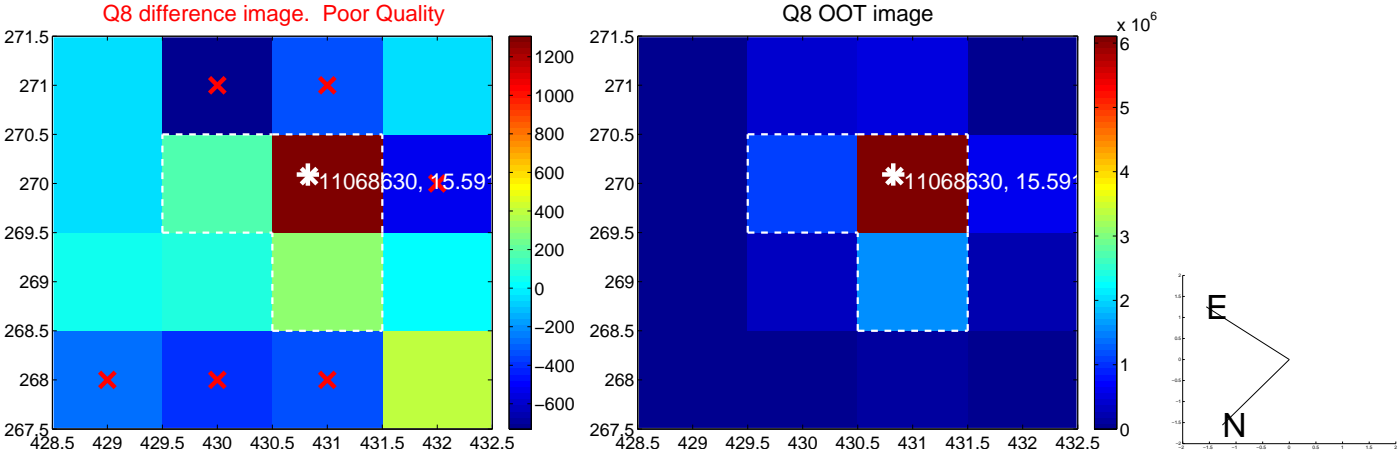
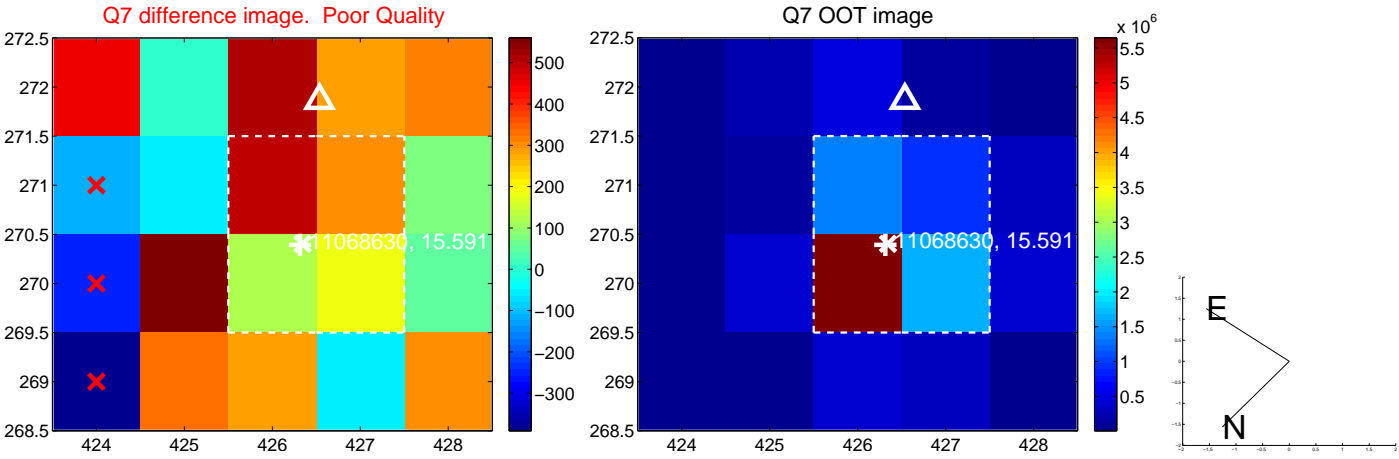
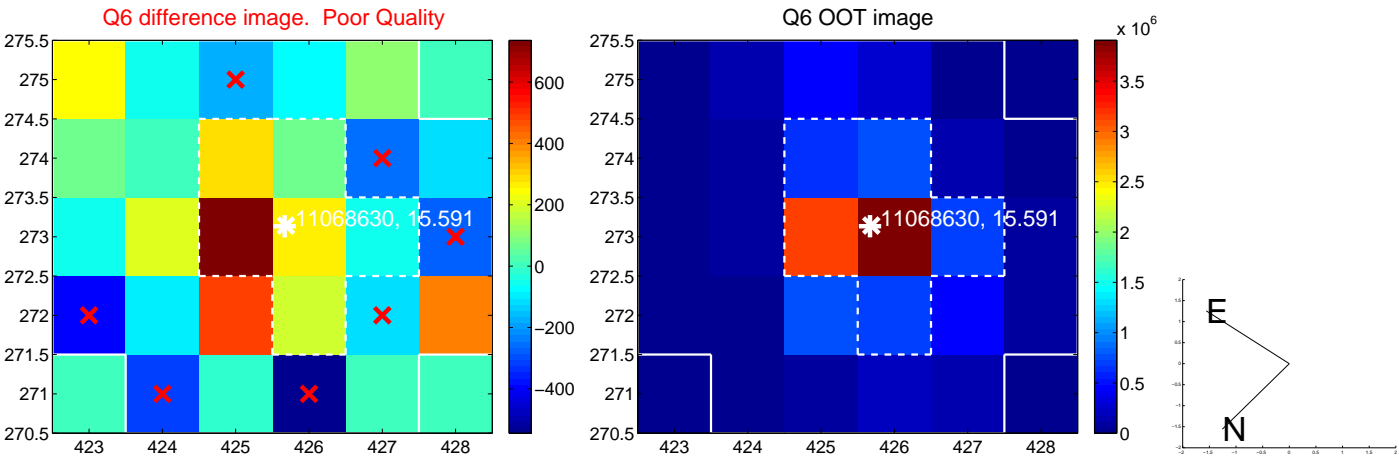
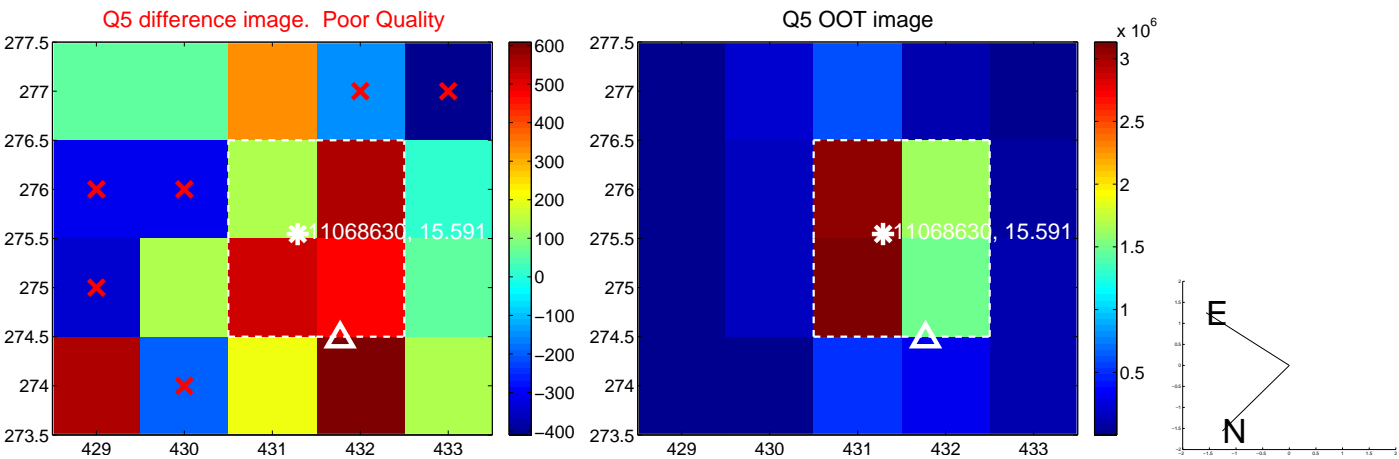


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

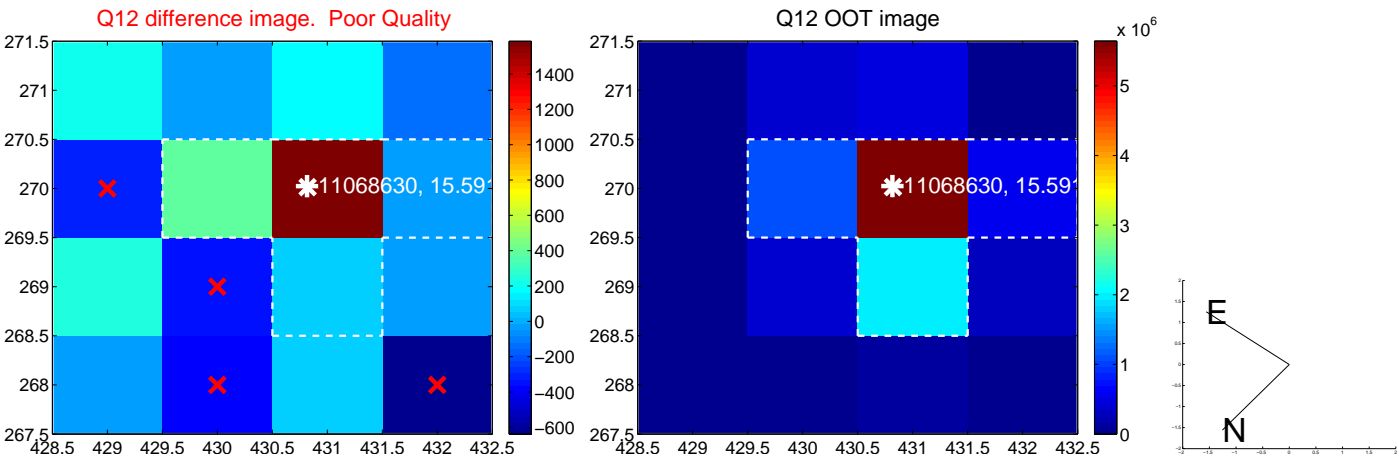
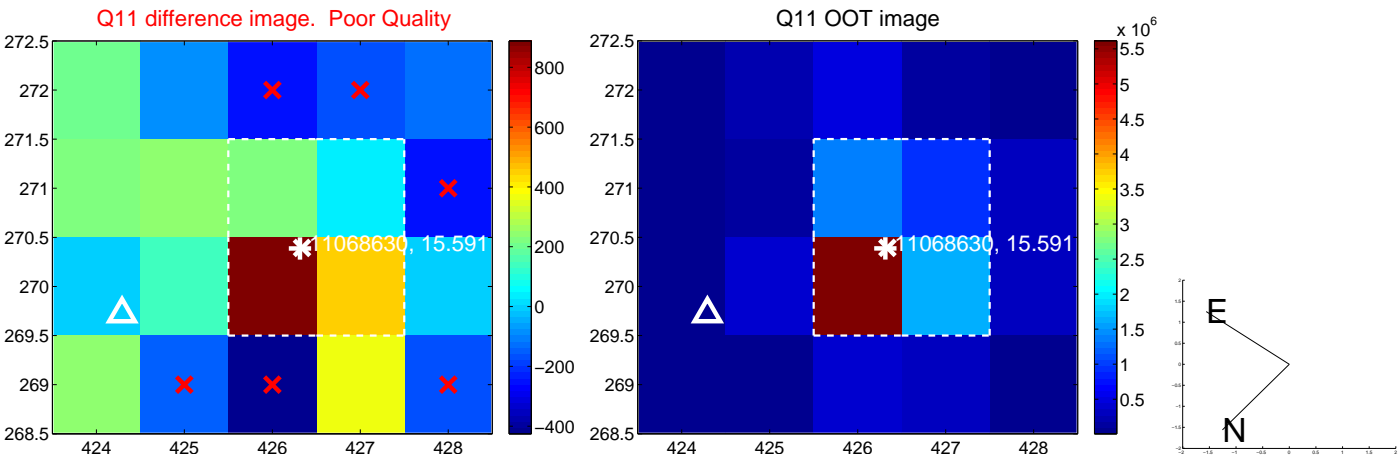
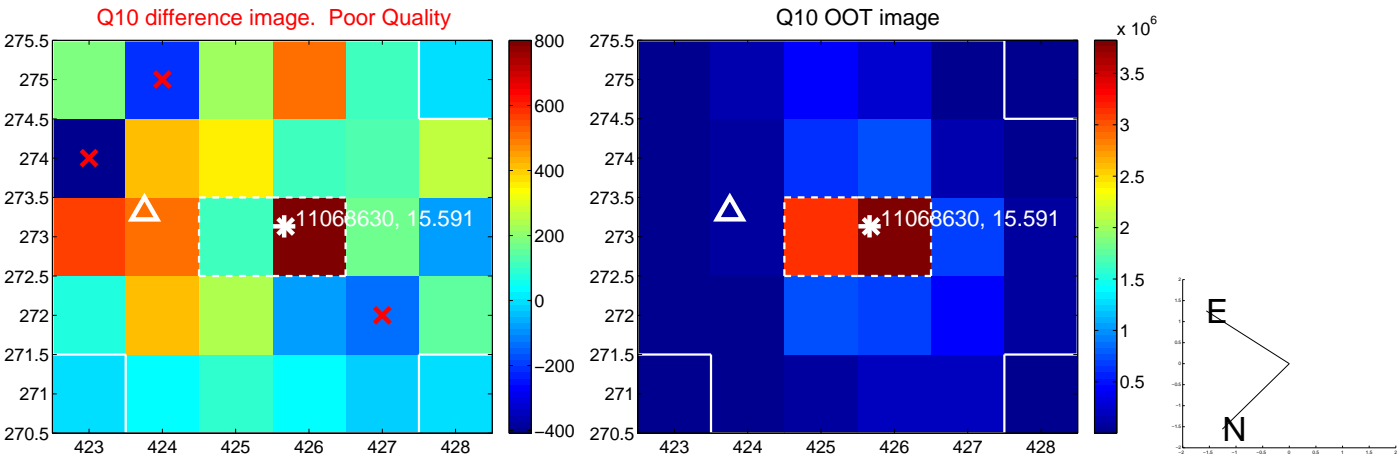
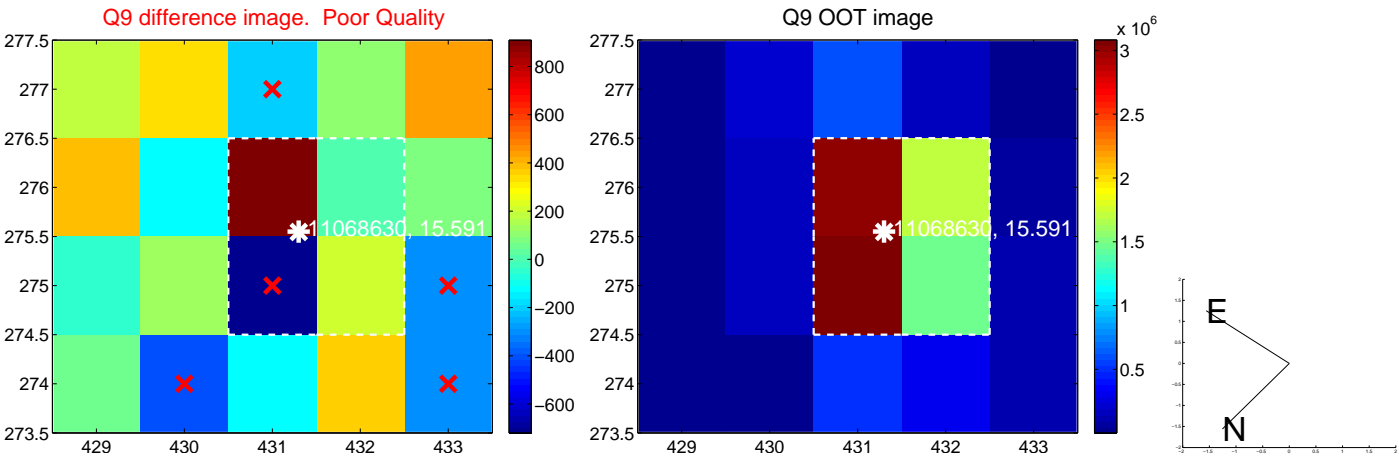
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



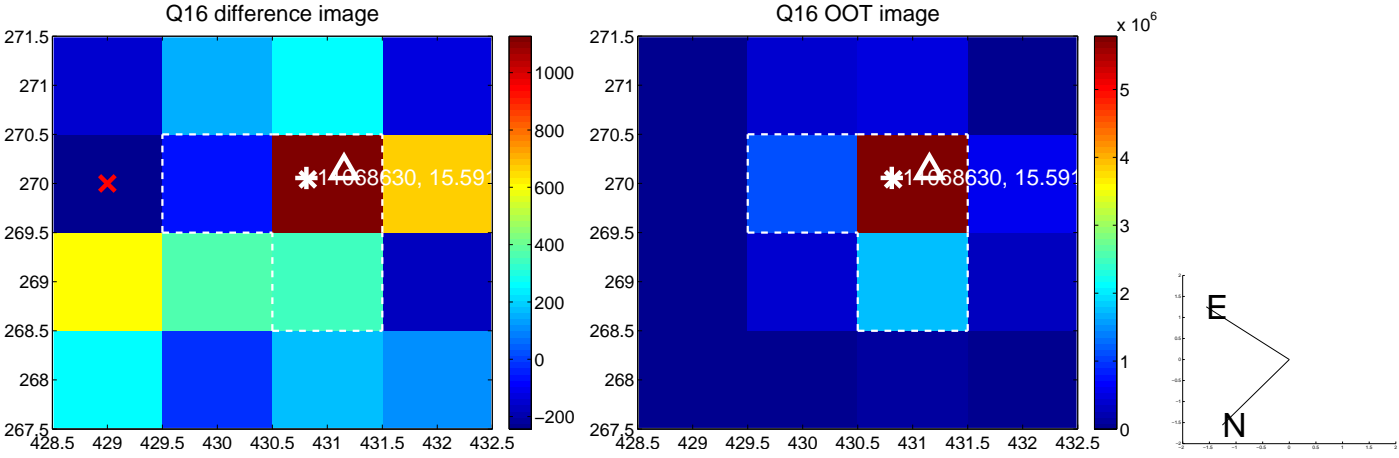
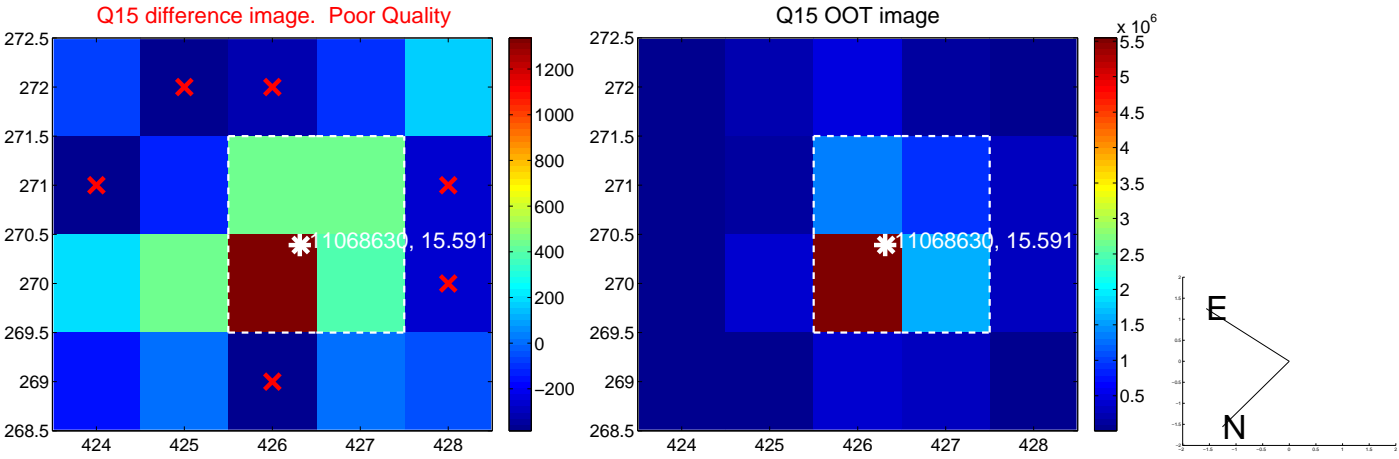
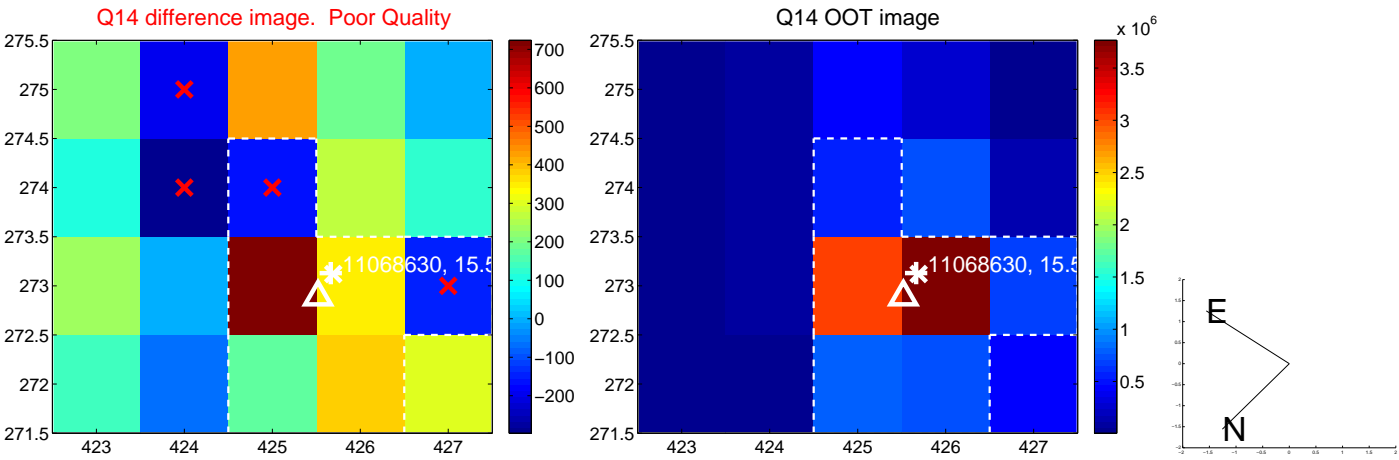
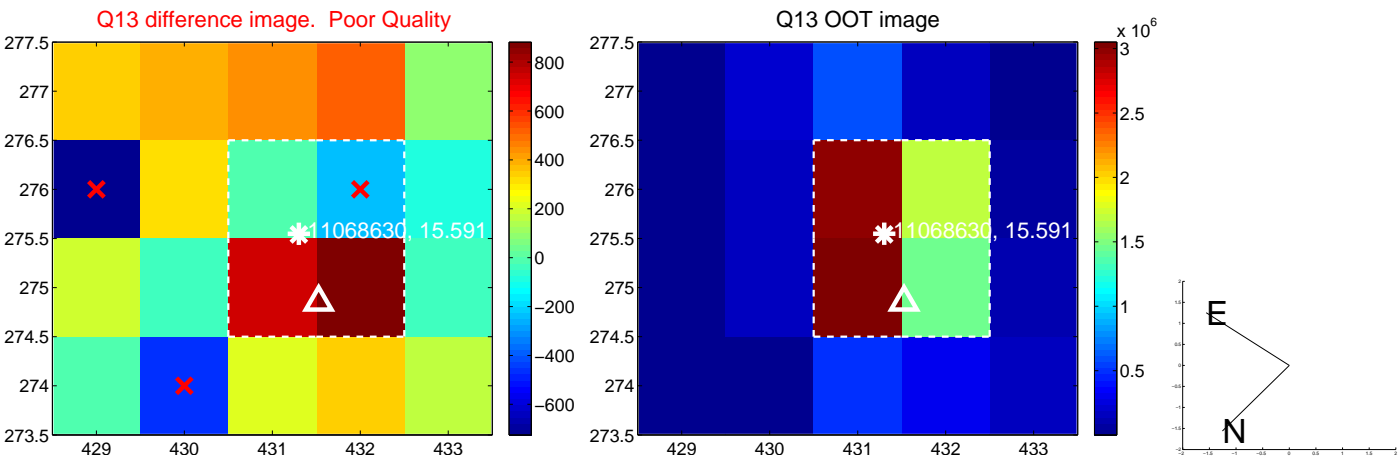
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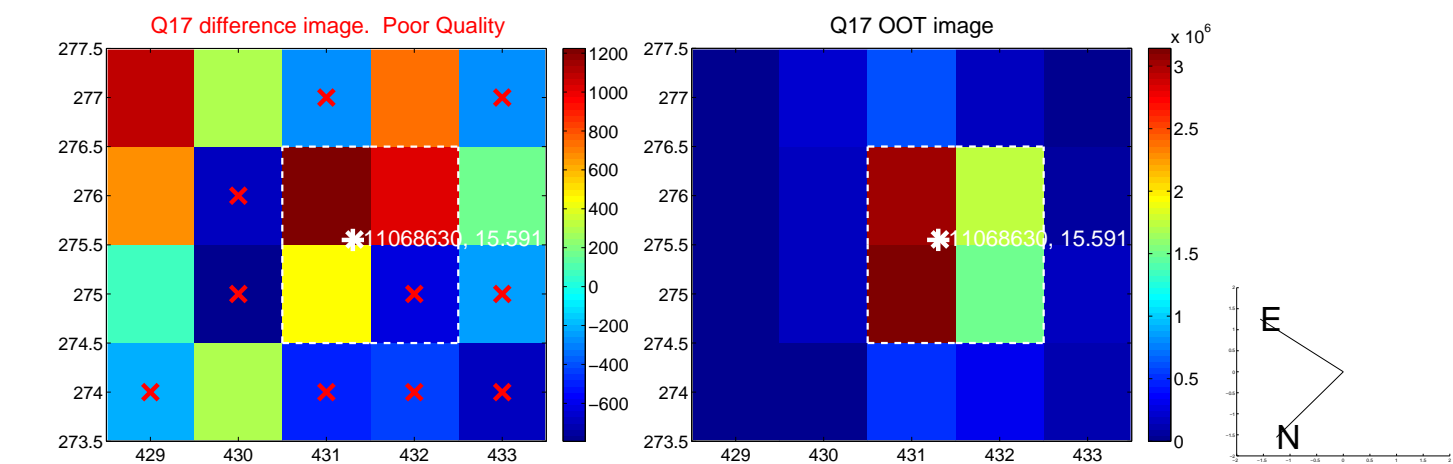
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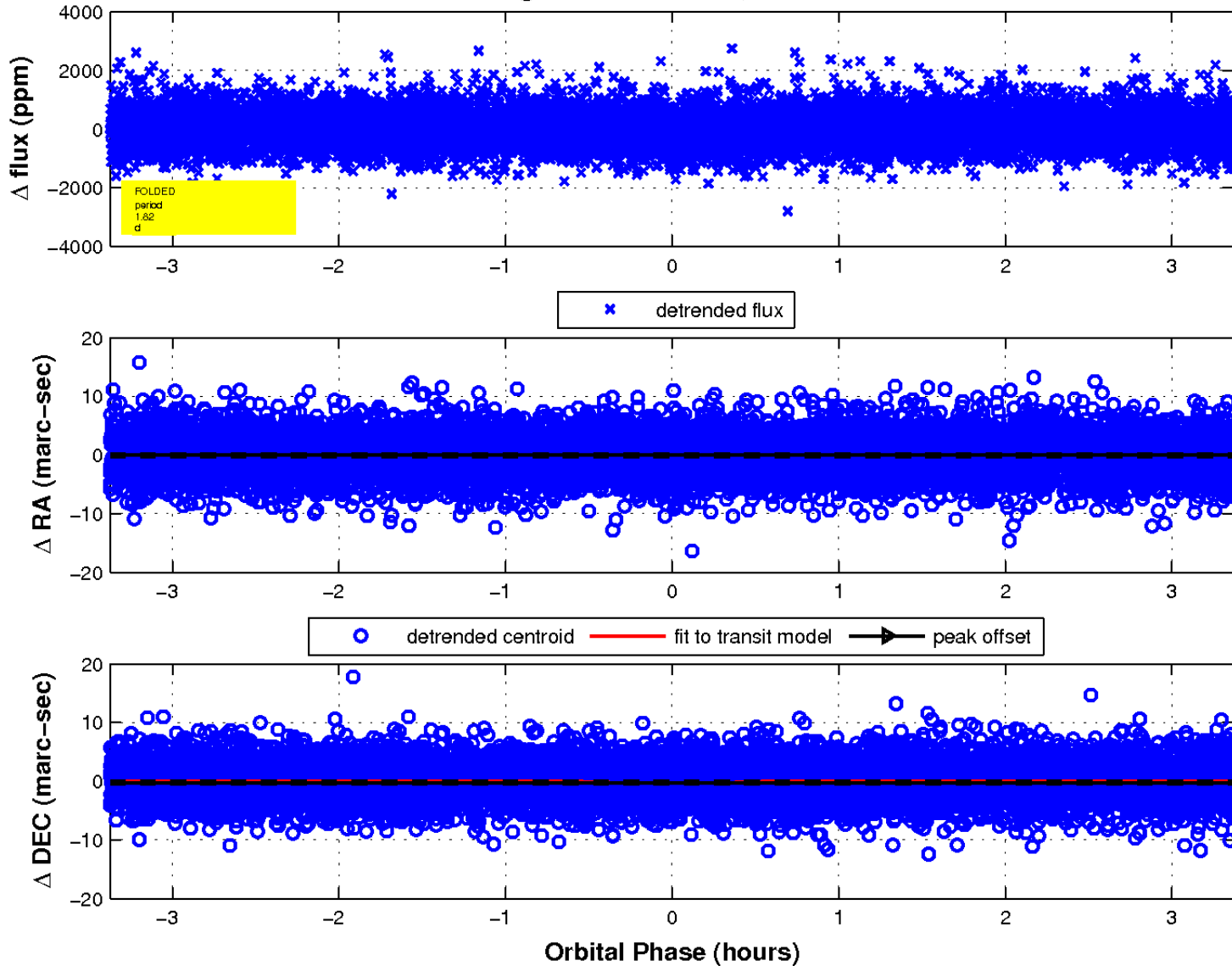
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

