

KIC 011141200

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})
011141200-02	OBS	No	0.736270	131.614031	11.7	1.535	8.7	6.9	1.26	6752	0.50	10143.24
011141200-03	OBS	No	0.736273	132.092824	12.3	2.133	8.4	8.3	1.26	6752	0.51	10143.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011141200-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
011141200-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

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

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

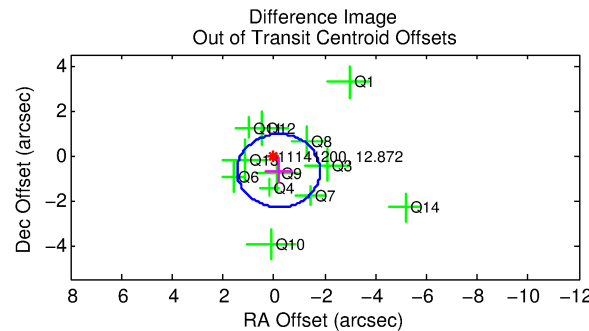
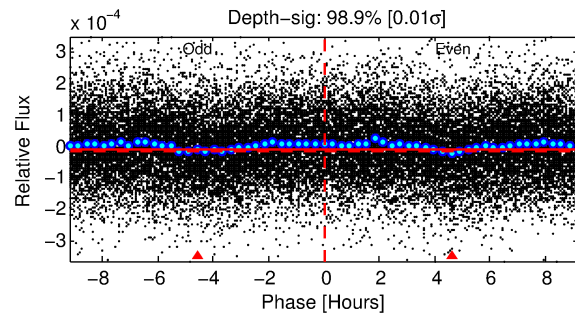
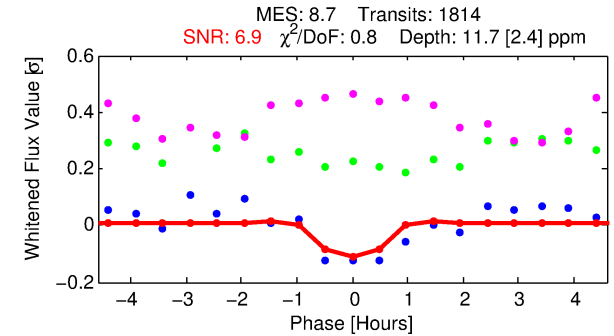
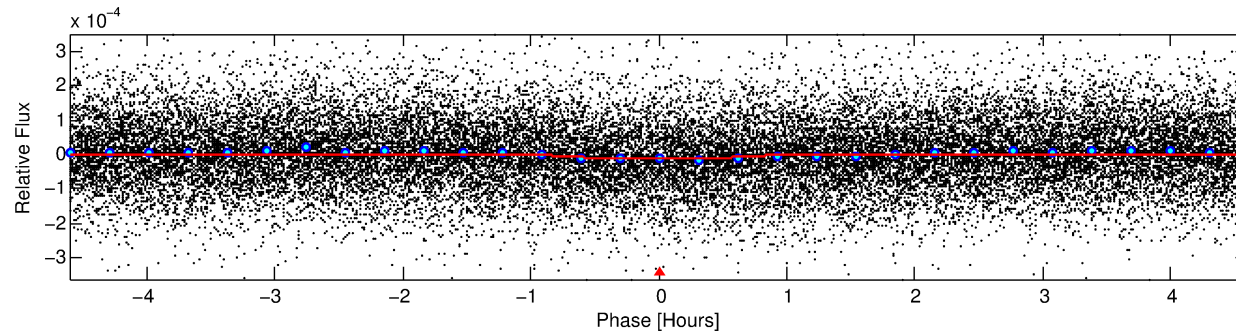
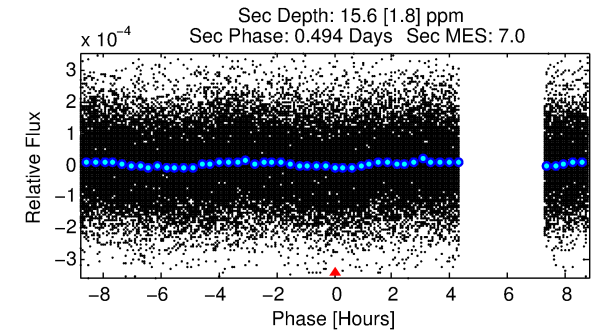
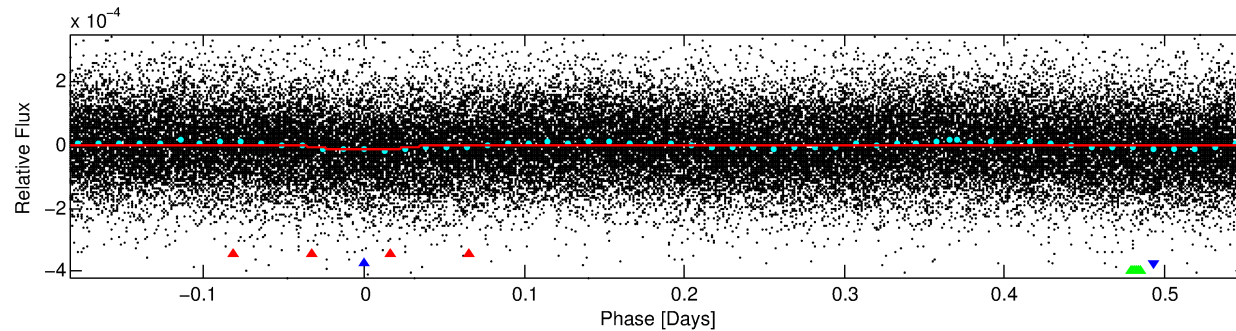
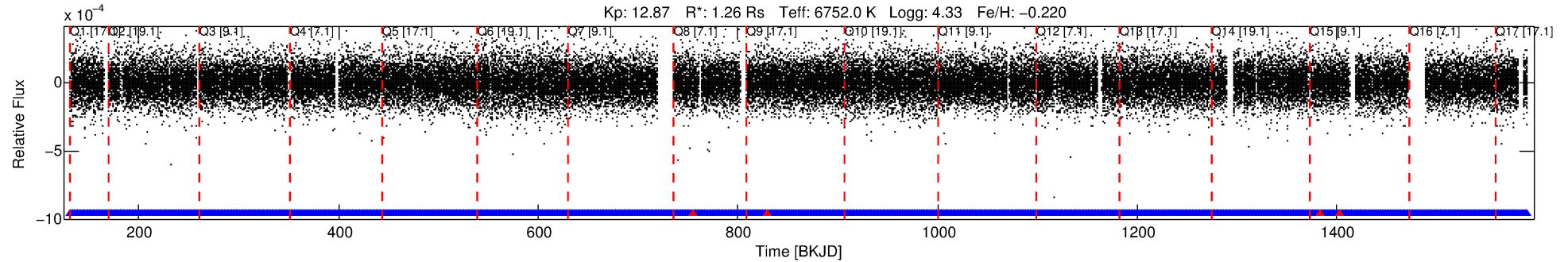
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011141200-02

No Significant Match Found

DV One-Page Summary

KIC: 11141200 Candidate: 2 of 3 Period: 0.736 d



DV Fit Results:

Period = 0.73627 [0.00002] d
Epoch = 131.6140 [0.0031] BKJD
Rp/R* = 0.0037 [0.0008]
a/R* = 1.89 [1.60]
b = 0.90 [0.26]
Seff = 10143.24 [3106.15]
Teff = 2559 [196] K
Rp = 0.50 [0.16] Re
a = 0.0171 [0.0032] AU
Ag = 9.91 [5.20] [1.71σ]
Teffp = 7019 [828] K [5.24σ]

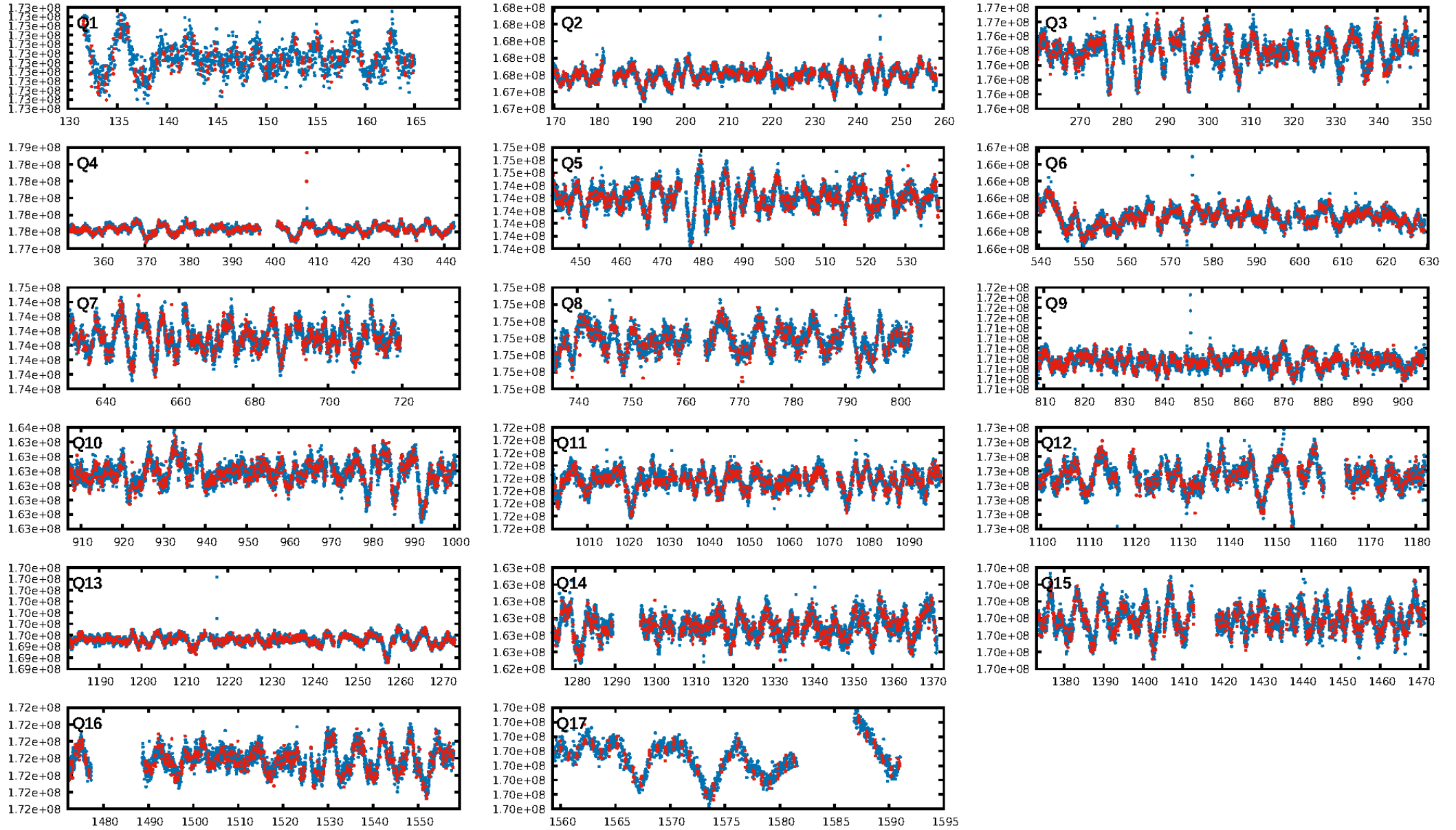
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.62e-16
RollingBand-fgt: 1.00 [1727/1731]
GhostDiagnostic-chr: -5.451
Centroid-sig: 8.8%
Centroid-so: 2.401 arcsec [1.68σ]
OotOffset-rm: 0.707 arcsec [1.30σ]
KicOffset-rm: 0.704 arcsec [1.30σ]
OotOffset-st: 3/3/3 [12]
KicOffset-st: 3/3/3 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 0.00 [0/17]

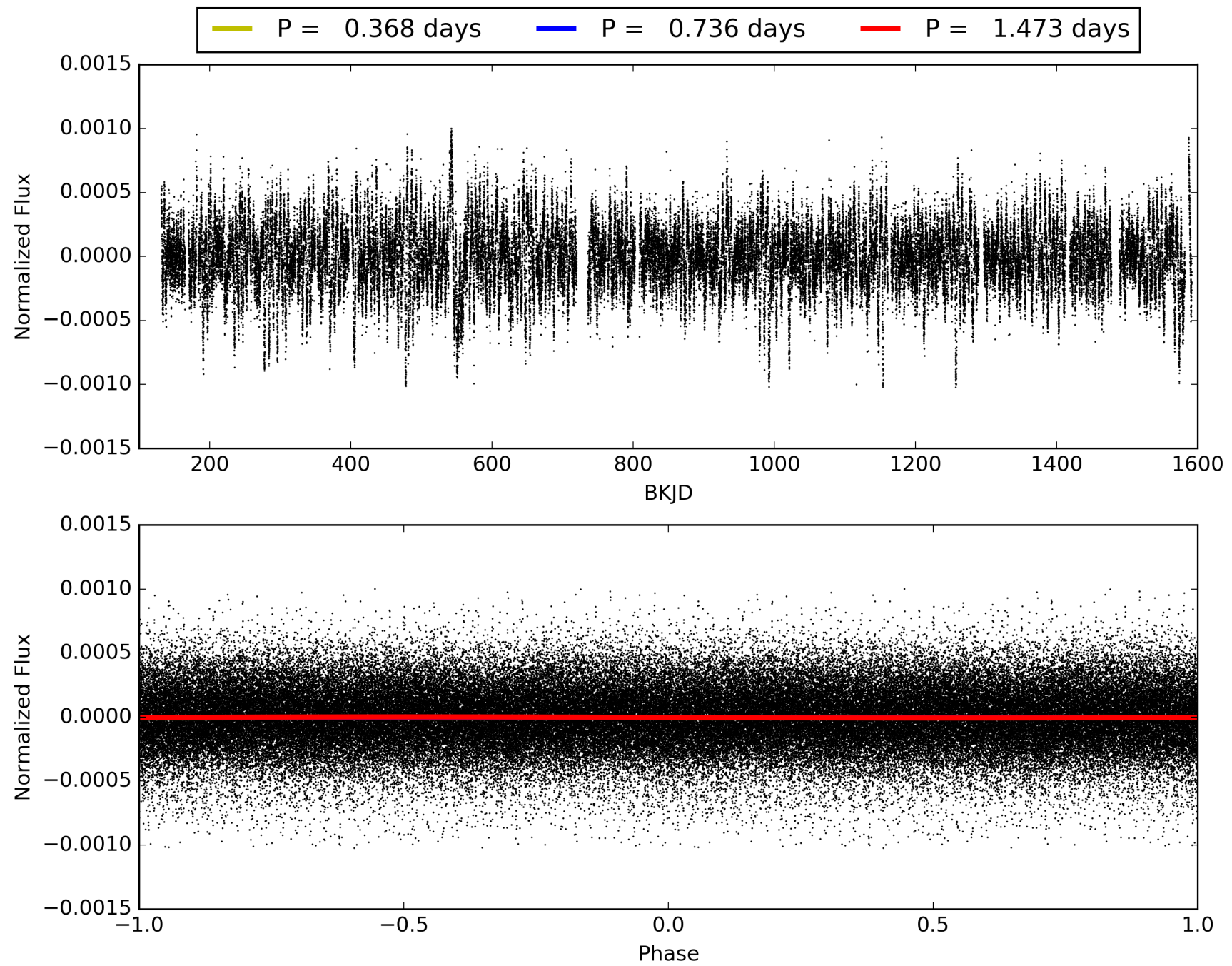
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:27:35 Z

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

TCE 011141200-02, PDC Light Curves

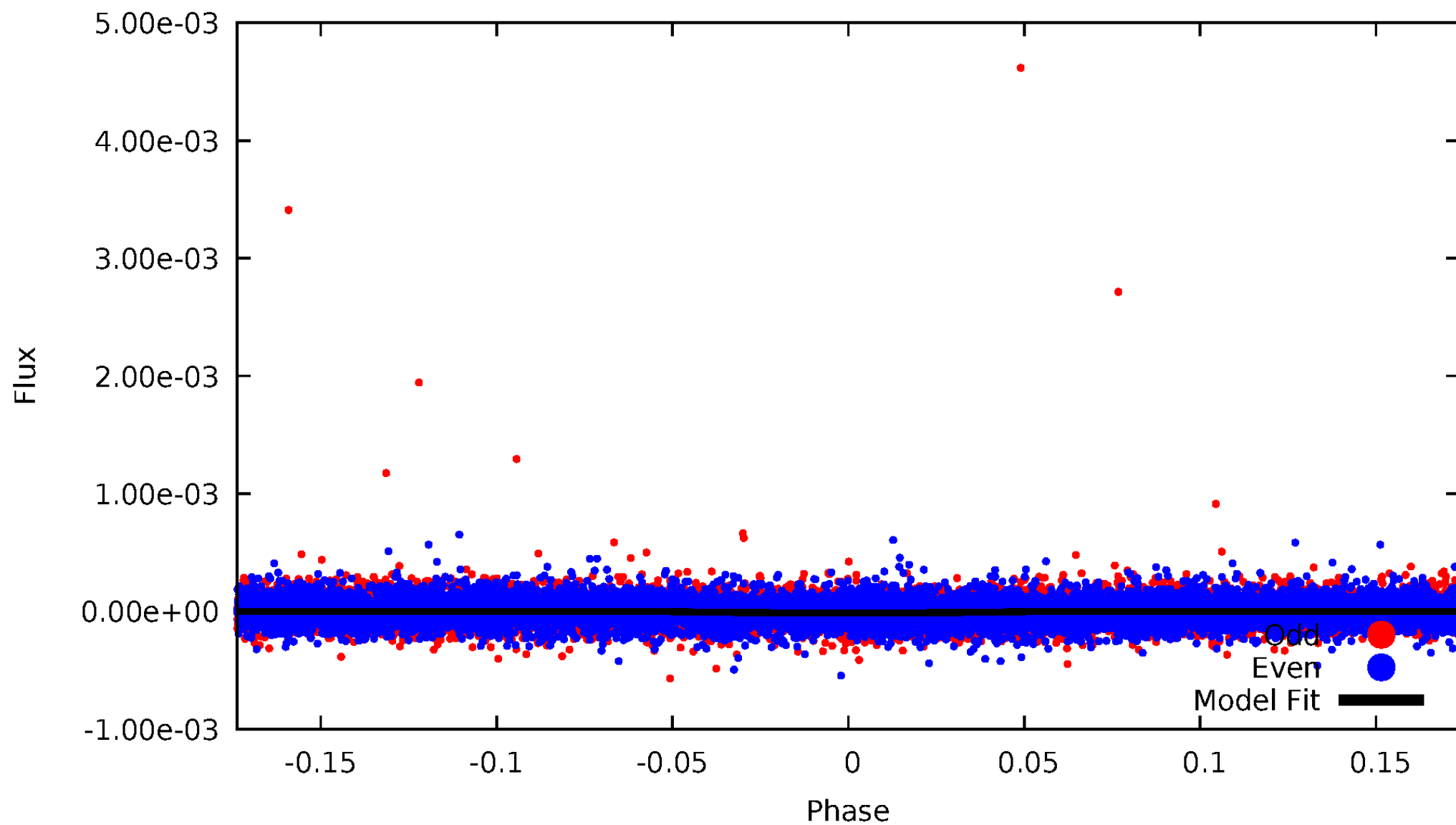


TCE 011141200-02



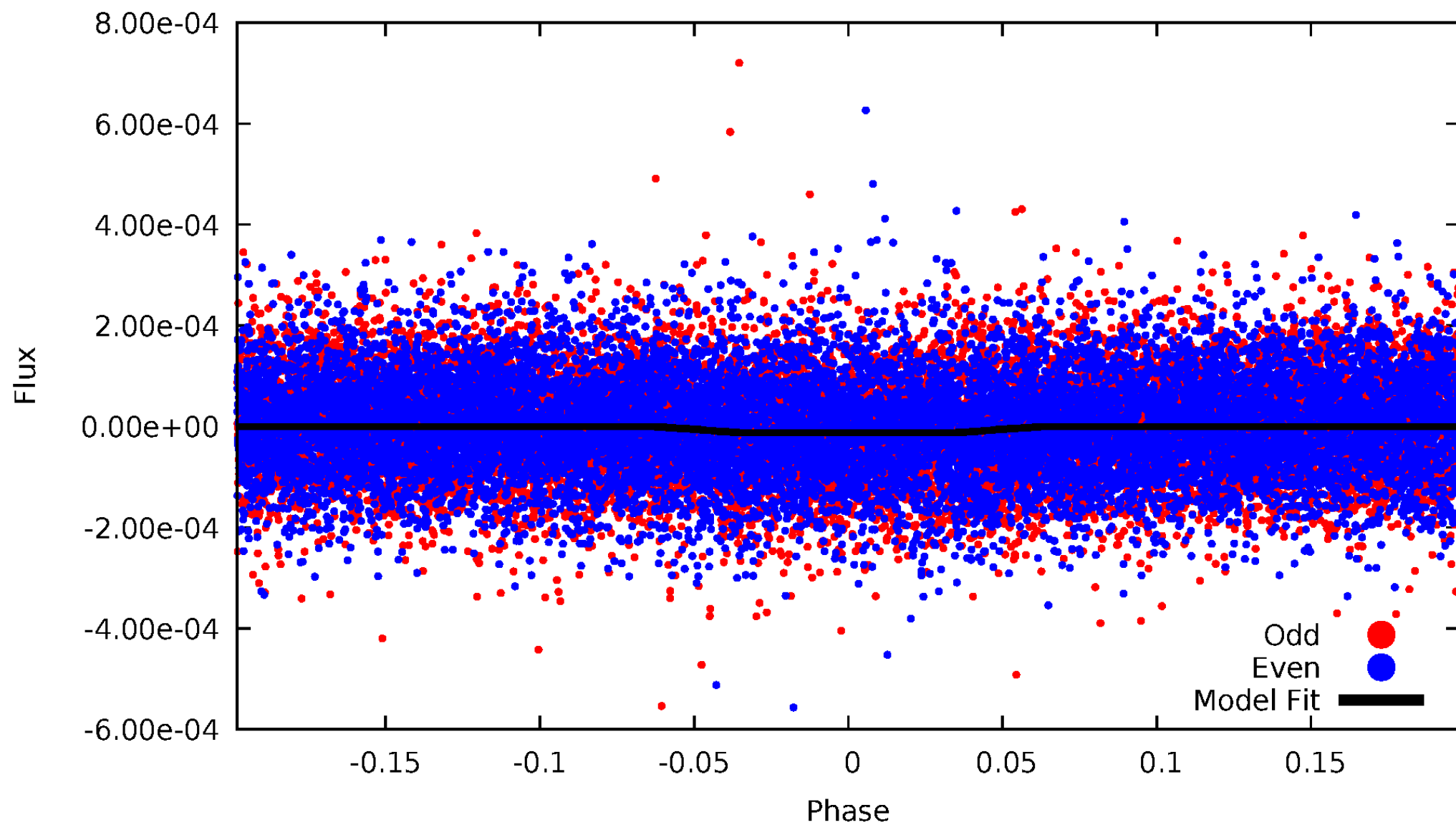
DV Odd/Even

TCE 011141200-02



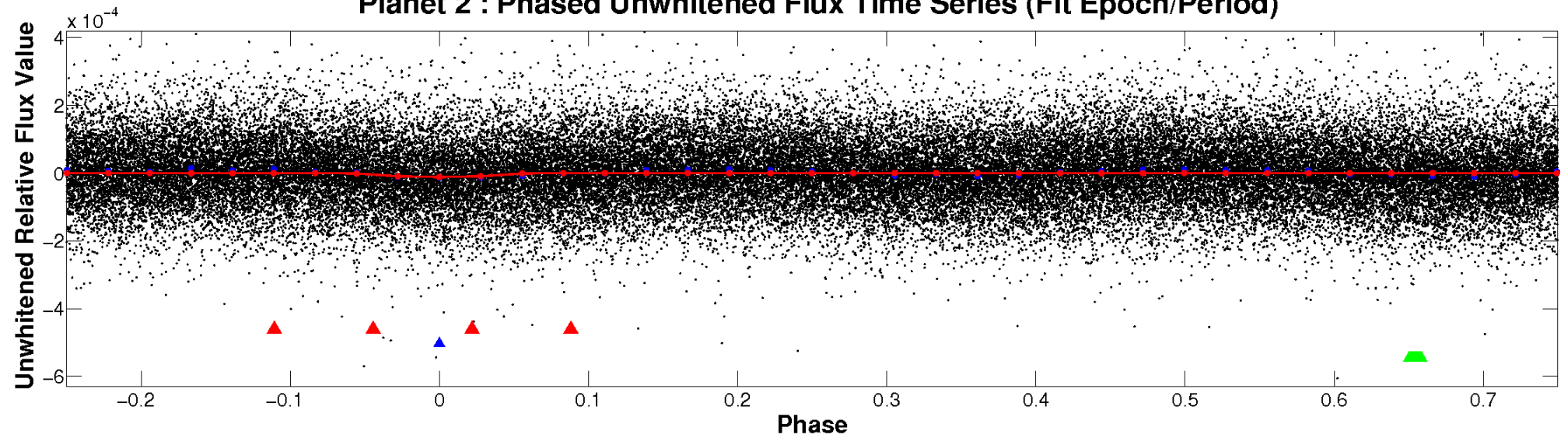
ALT Odd/Even

TCE 011141200-02

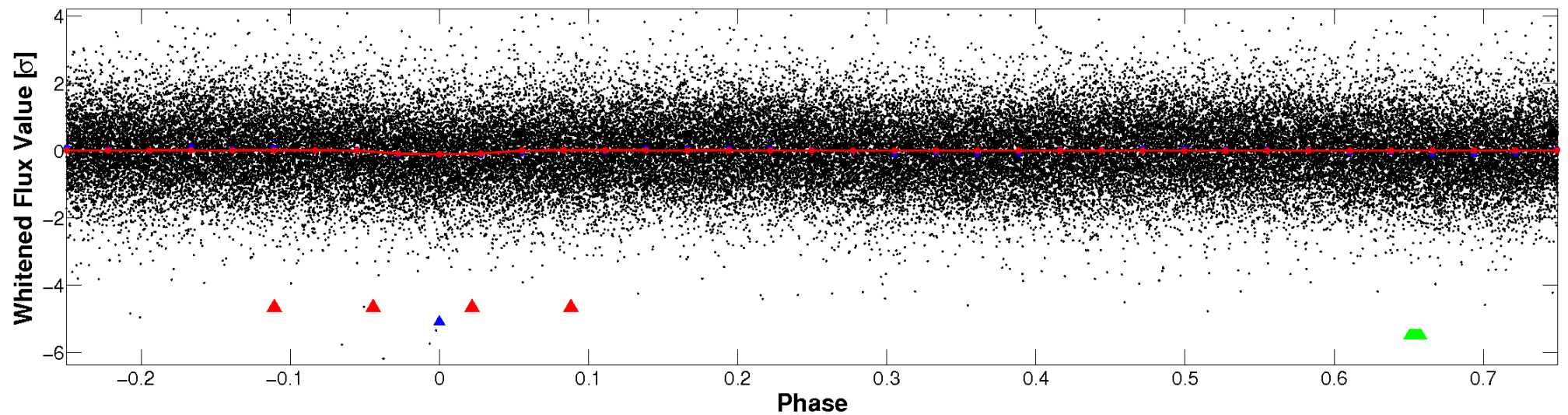


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

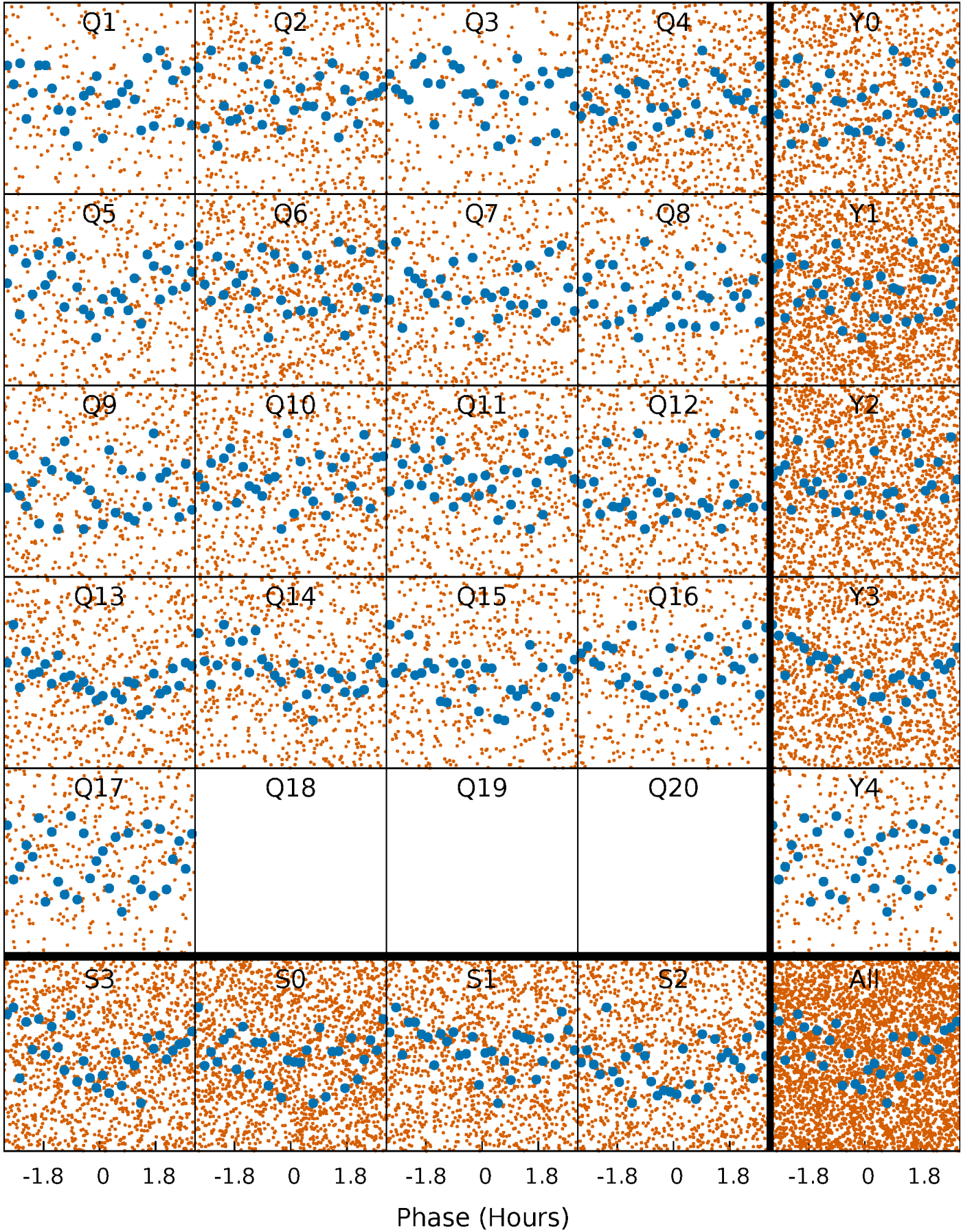


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



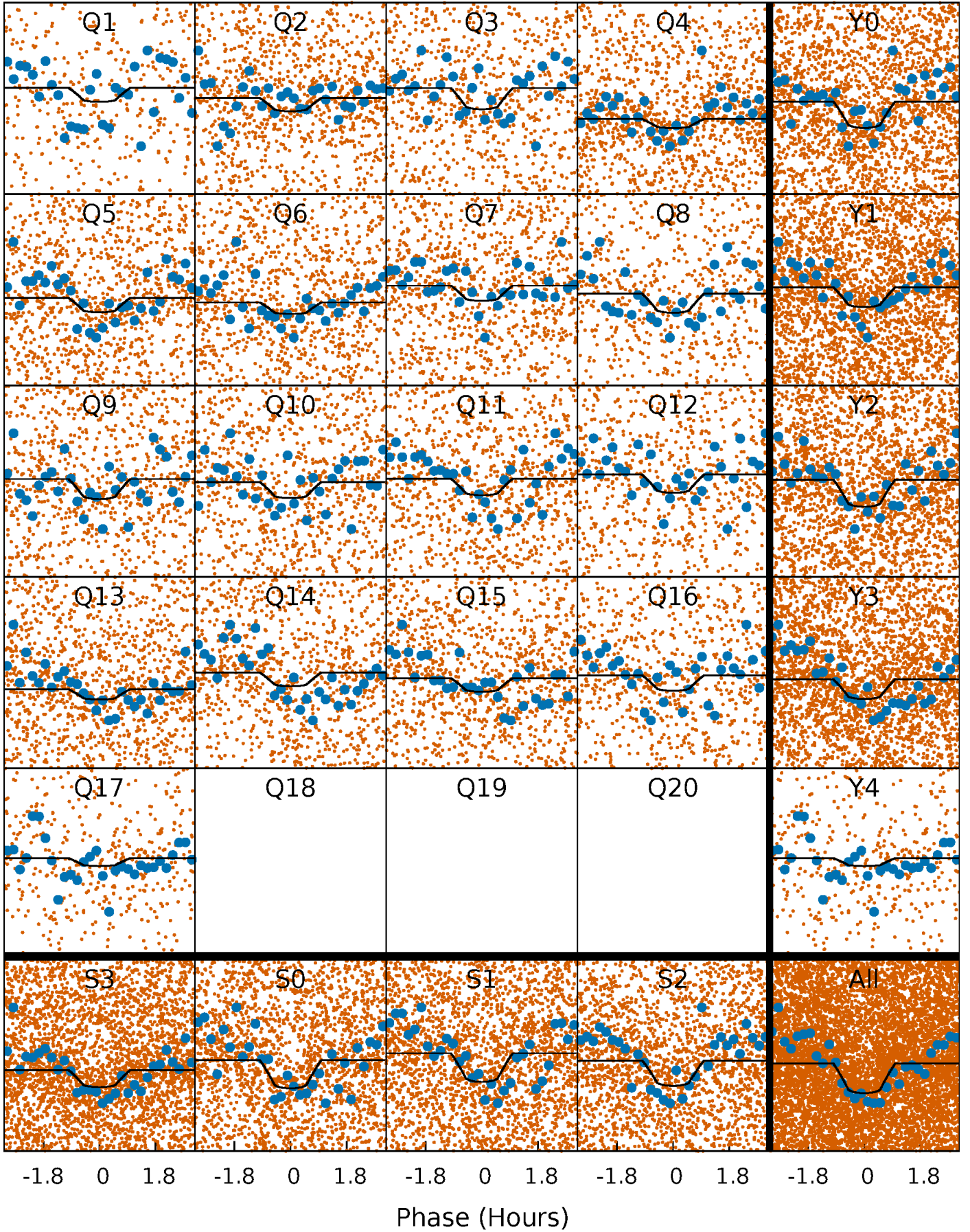
PDC Quarter-Phased Transit Curves

TCE 011141200-02 P= 0.736270 Days $T_0=131.614031$ (BKJD)



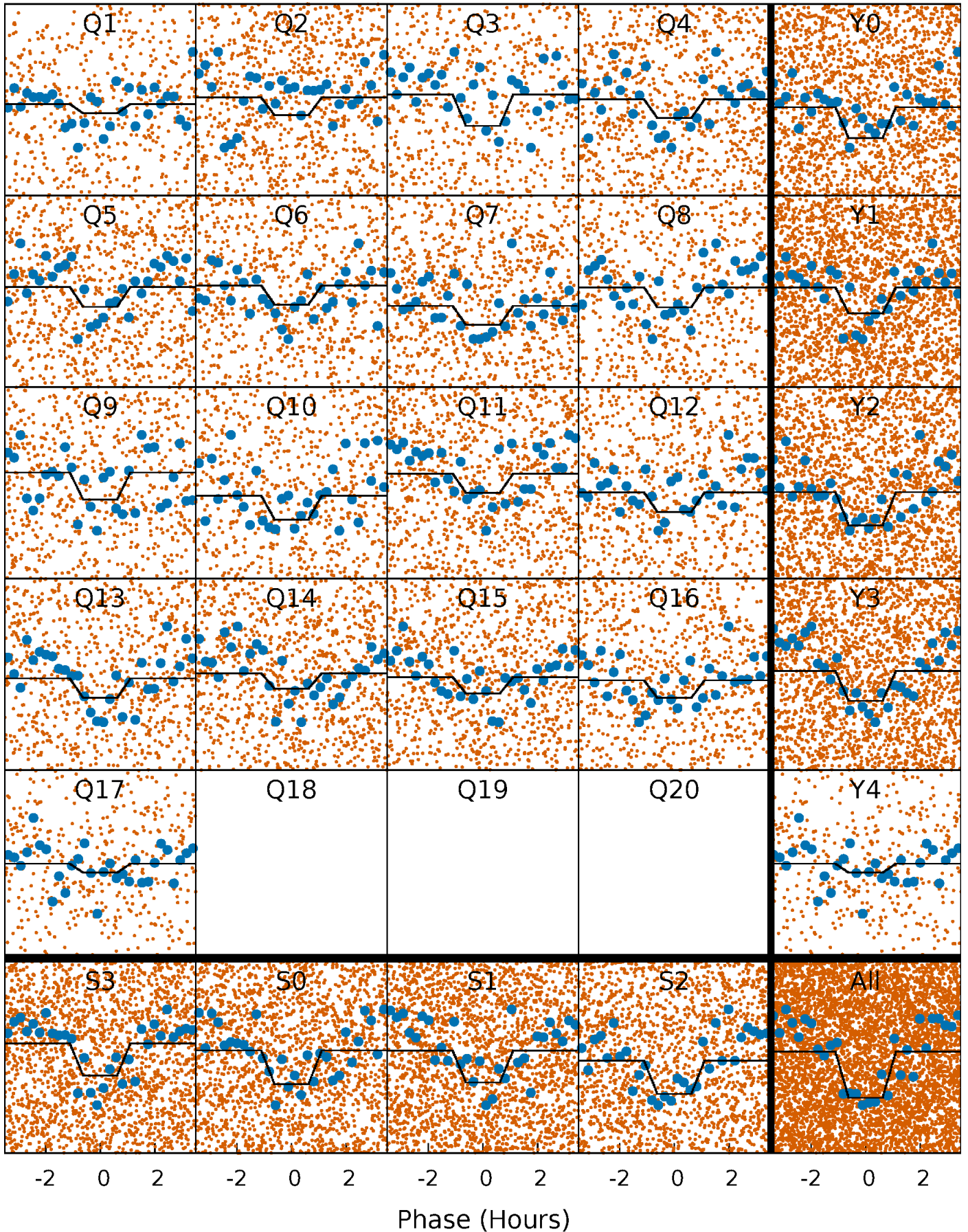
DV Quarter-Phased Transit Curves

TCE 011141200-02 $P = 0.736270$ Days $T_0 = 131.614031$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

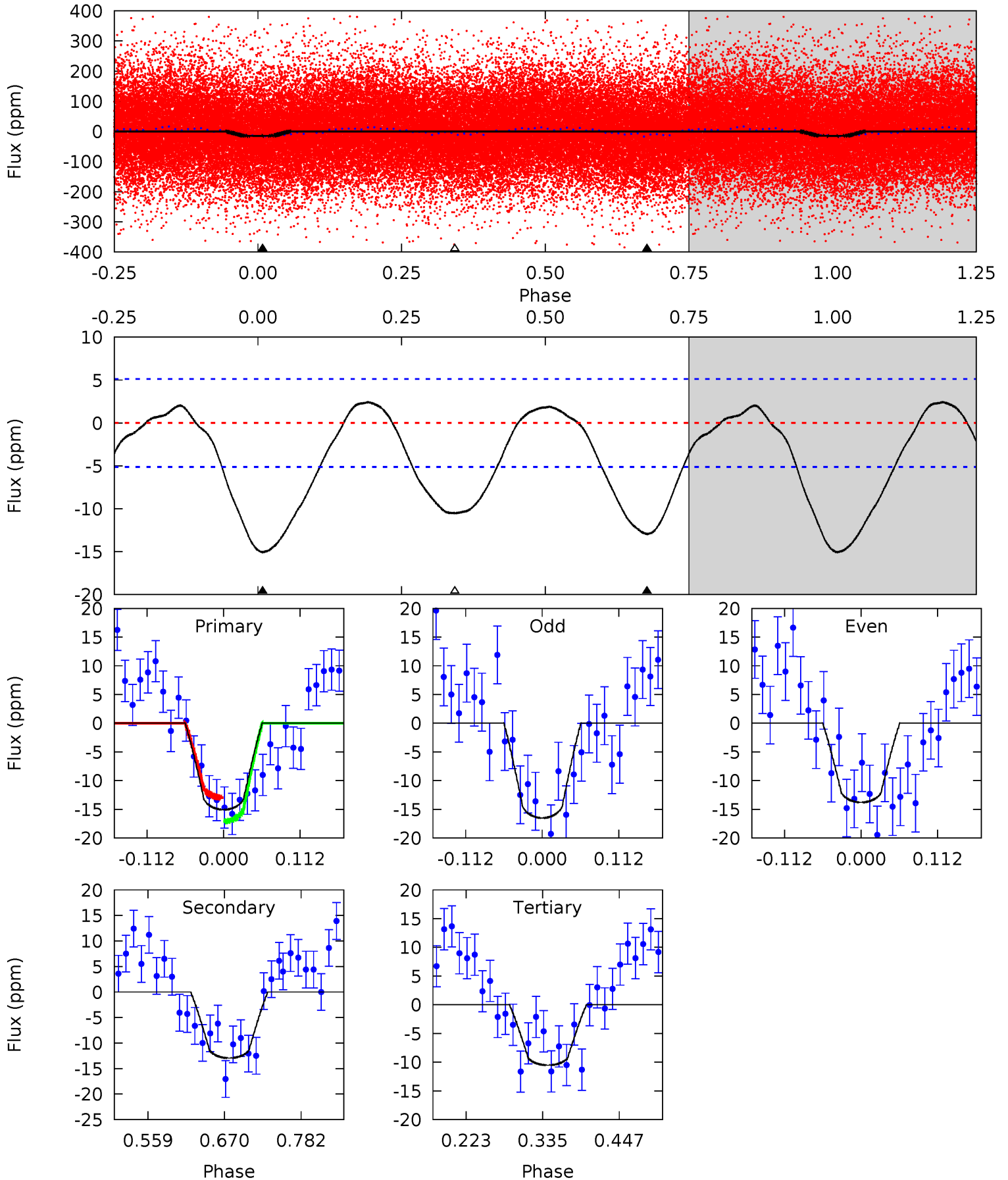
TCE 011141200-02 $P = 0.736278$ Days $T_0 = 131.614542$ (BKJD)



DV Model-Shift Uniqueness Test

011141200-02, P = 0.736270 Days, E = 130.877761 Days

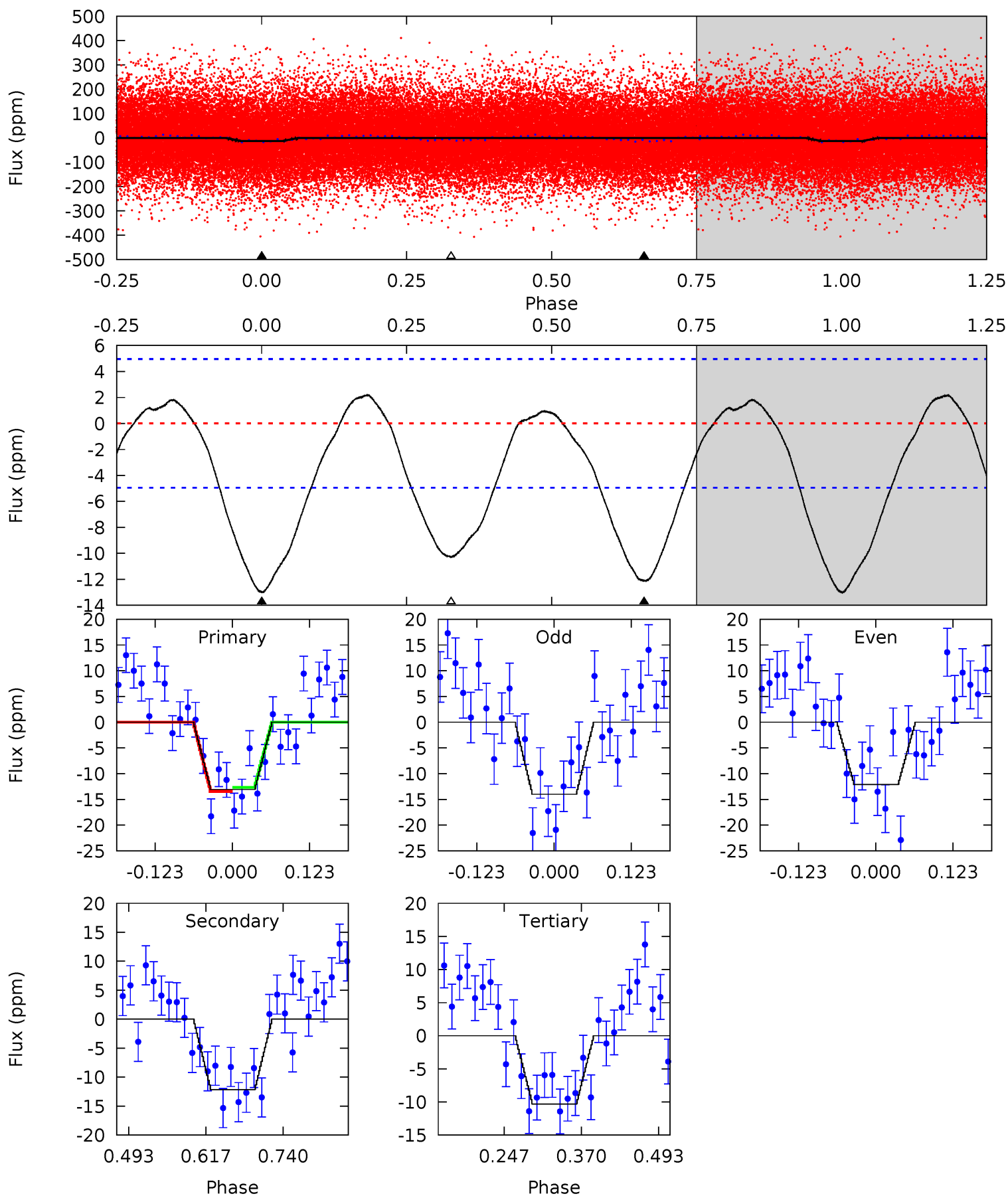
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	11.5	9.32	0	4.54	1.59	3.86	4.02	13.3	2.15	11.5	1.20	0.89	0.14	1.84



Alt Model-Shift Uniqueness Test

011141200-02, P = 0.736278 Days, E = 130.878264 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	11.1	9.40	0	4.52	1.54	3.79	2.50	11.9	1.68	11.1	0.87	0.99	0.14	0.36



Stellar Parameters For KIC 011141200

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6752^{+161}_{-241}	$4.326^{+0.073}_{-0.147}$	$-0.220^{+0.250}_{-0.300}$	$1.263^{+0.284}_{-0.153}$	$1.238^{+0.137}_{-0.182}$	$0.866^{+0.286}_{-0.333}$
	+2%/-4%	+2%/-3%	+114%/-136%	+22%/-12%	+11%/-15%	+33%/-38%
Source	PHO1	FLK73	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 011141200-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 1	$0.52^{+0.13}_{-0.12}$	3607^{+202}_{-176}	6556^{+1054}_{-693}	$7.610^{+5.048}_{-2.761}$
Alt.	-12 ± 1	$0.49^{+0.13}_{-0.11}$	3591^{+217}_{-154}	6611^{+1197}_{-712}	$7.970^{+5.882}_{-2.977}$

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 $A_{obs} \gg 1.0$

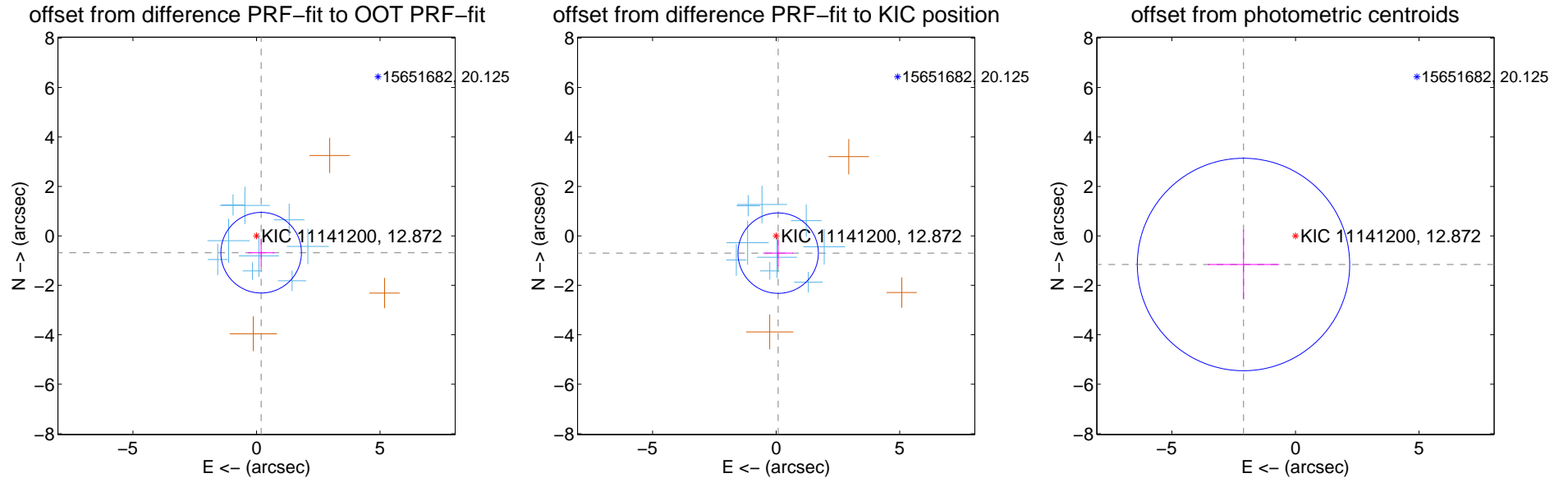
DV Centroid Data

Supplemental centroid analysis for 011141200-02. Kepler magnitude: 12.87. Transit SNR 6.95

There are 9 quarters with good PRF difference image offsets

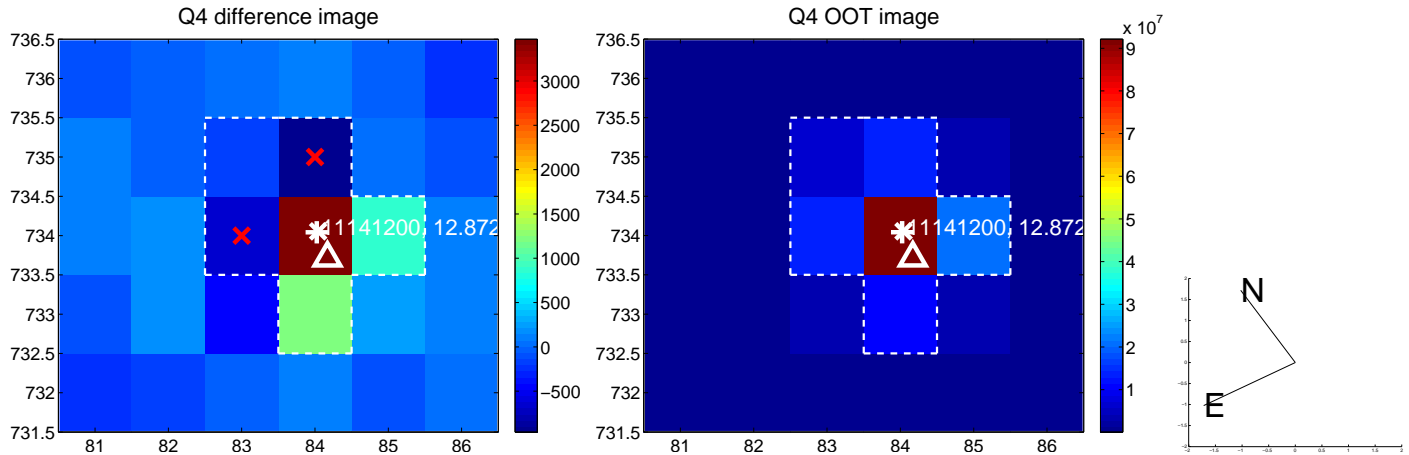
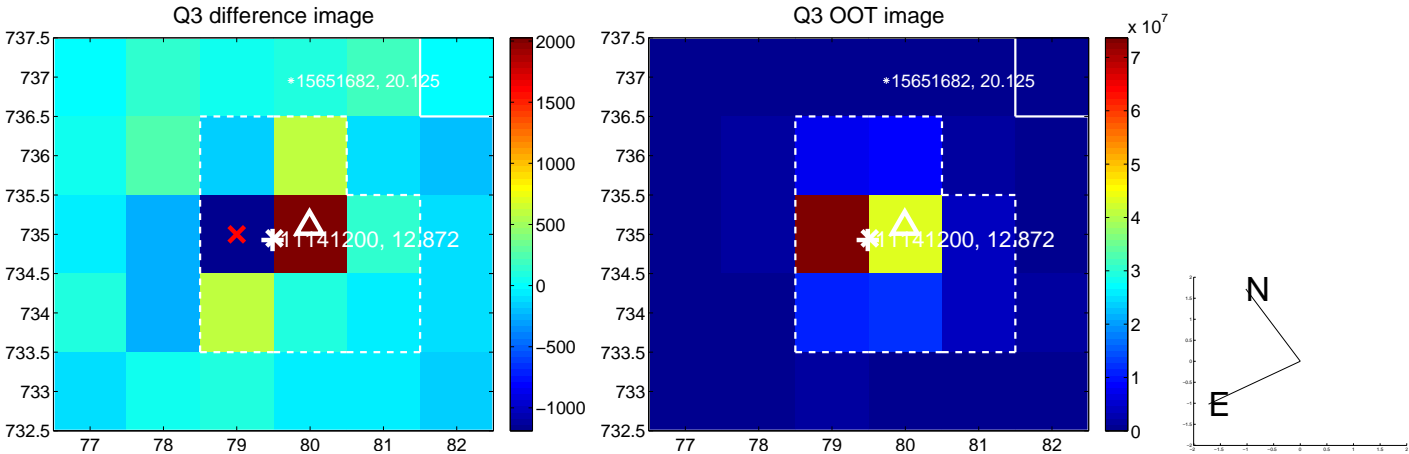
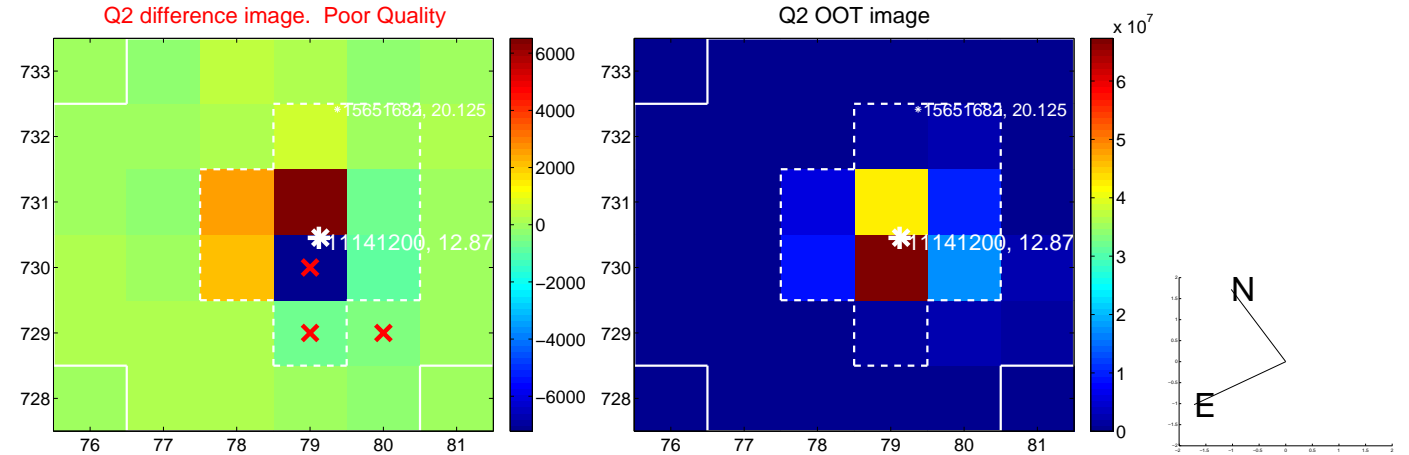
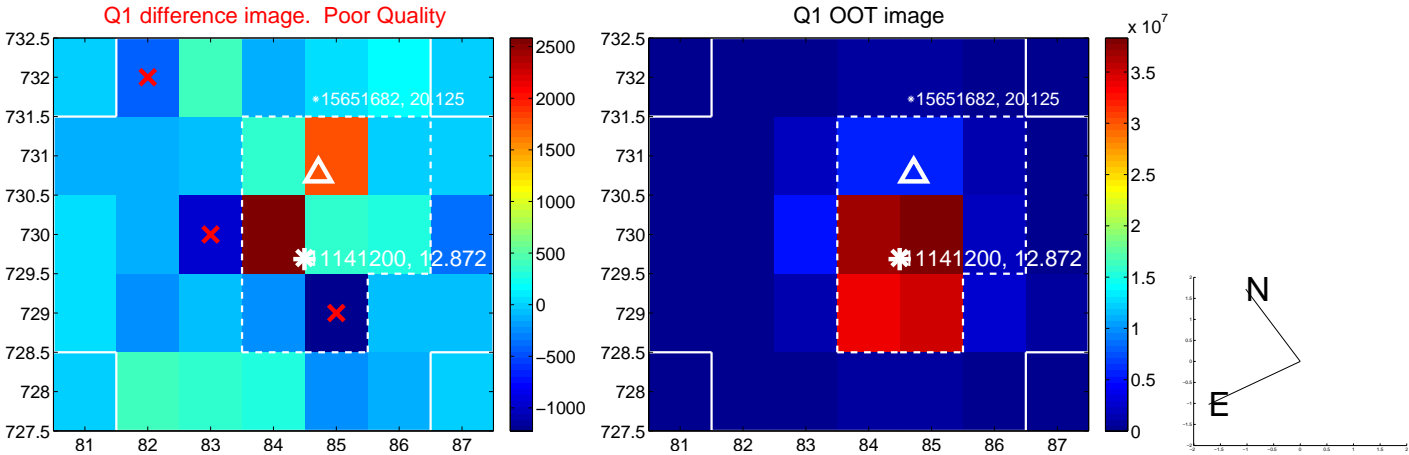
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.707 ± 0.543	1.30	-0.188 ± 0.539	-0.682 ± 0.544
PRF-fit source offset from KIC position	0.704 ± 0.542	1.30	-0.082 ± 0.606	-0.699 ± 0.531
photometric centroid source offset	2.40 ± 1.43	1.68	2.10 ± 1.44	-1.16 ± 1.40

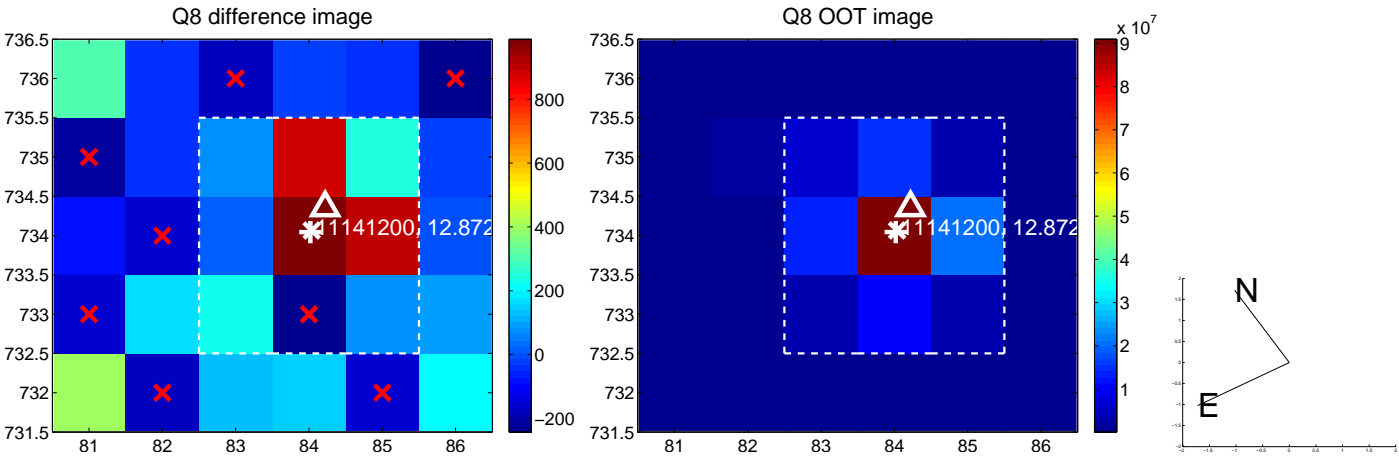
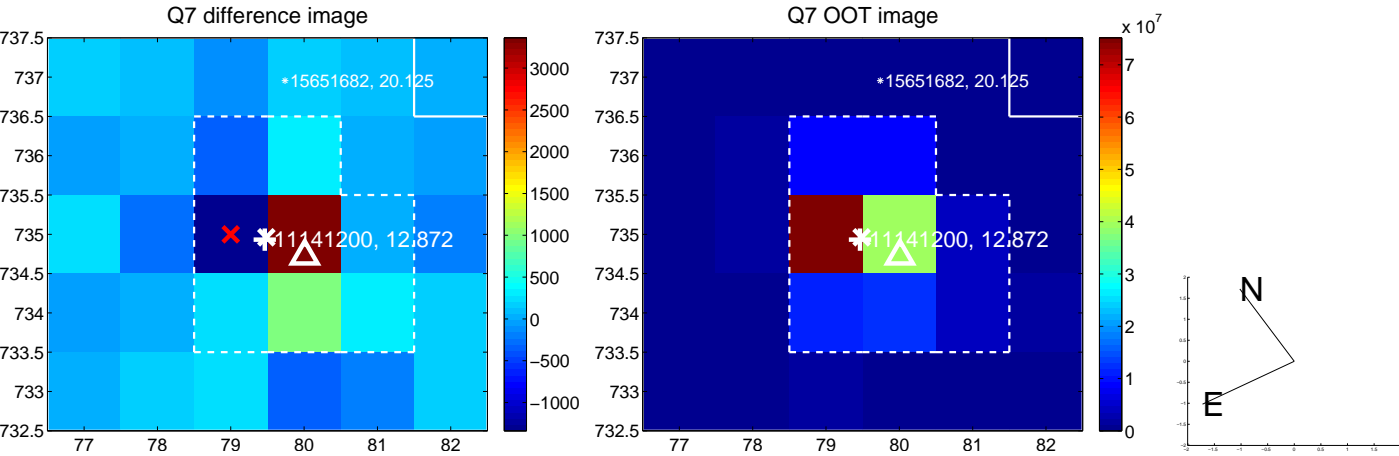
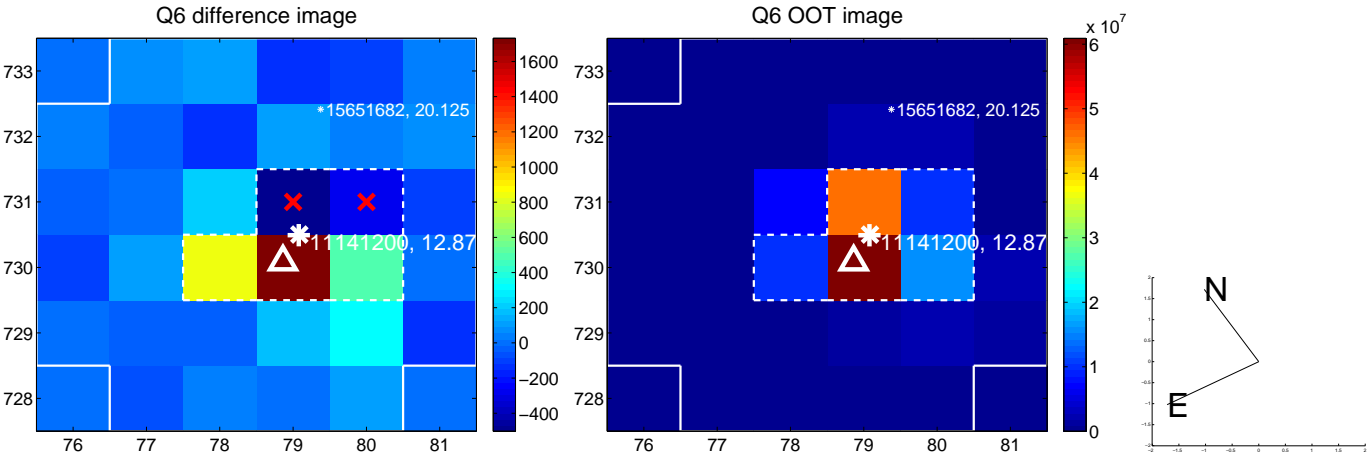
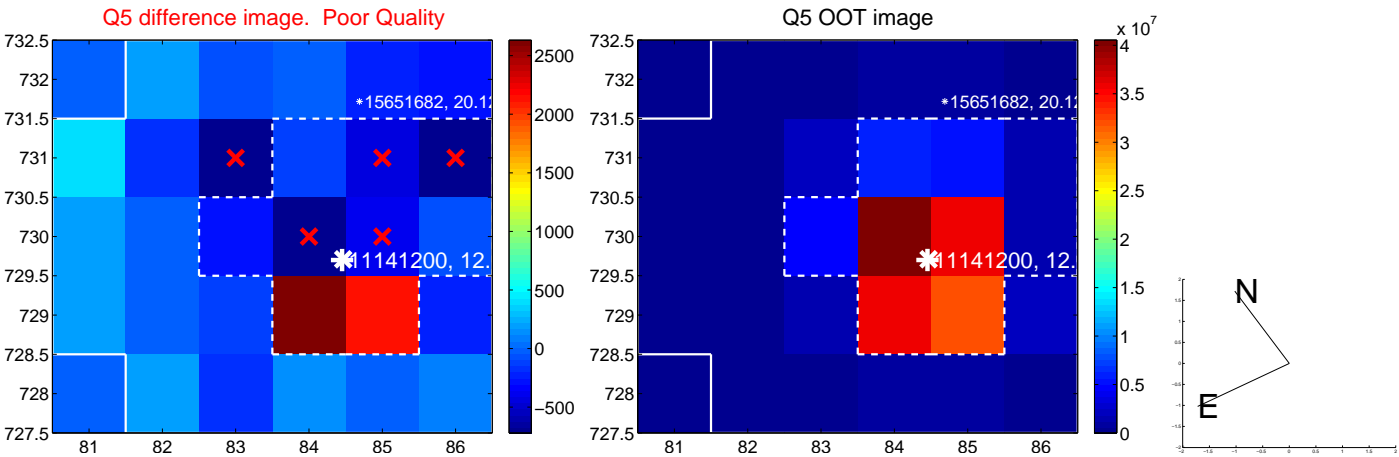


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

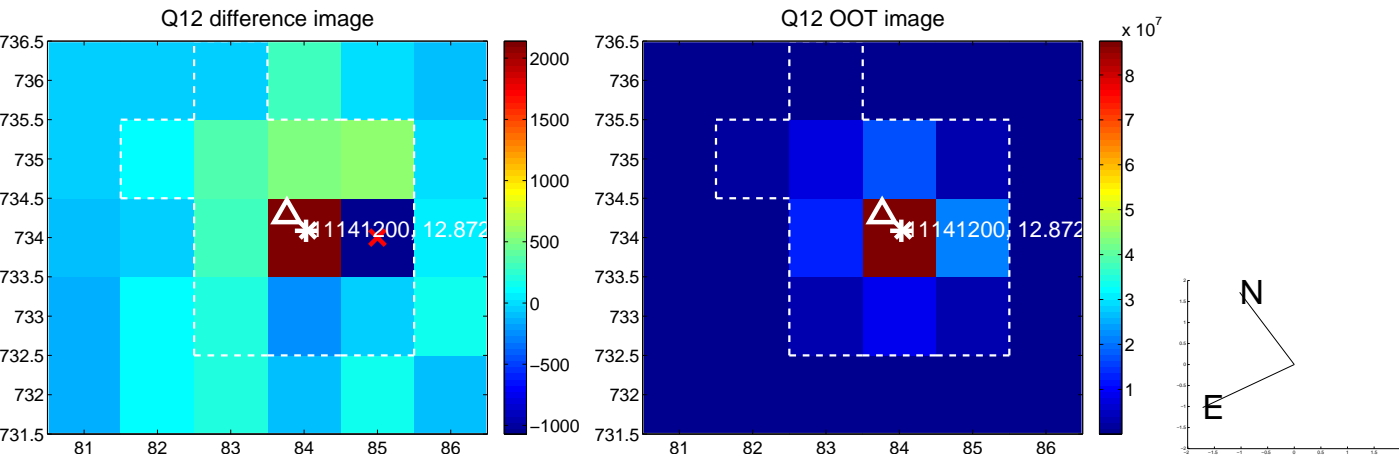
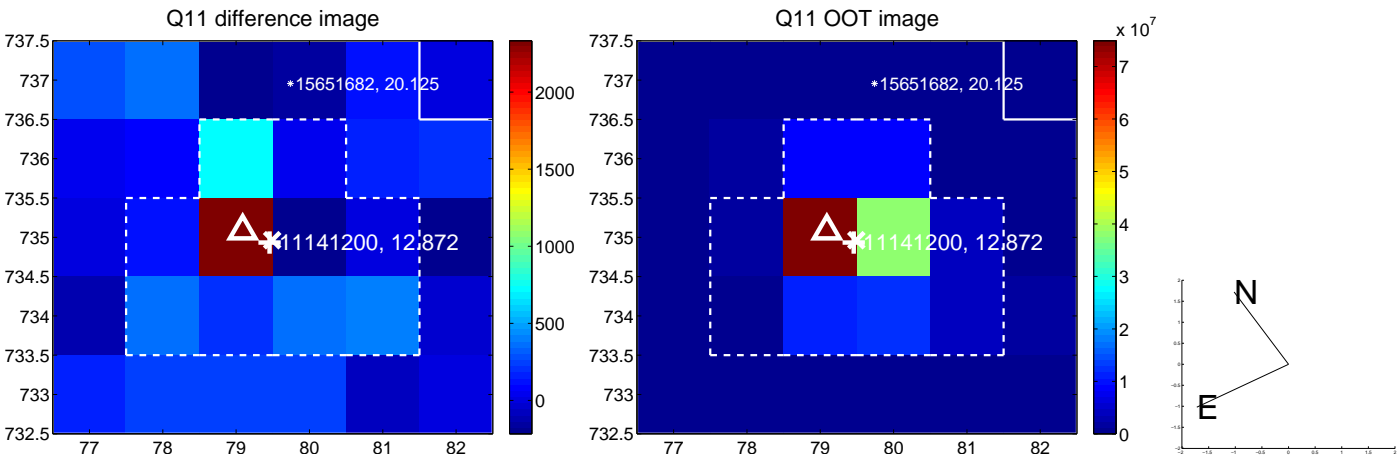
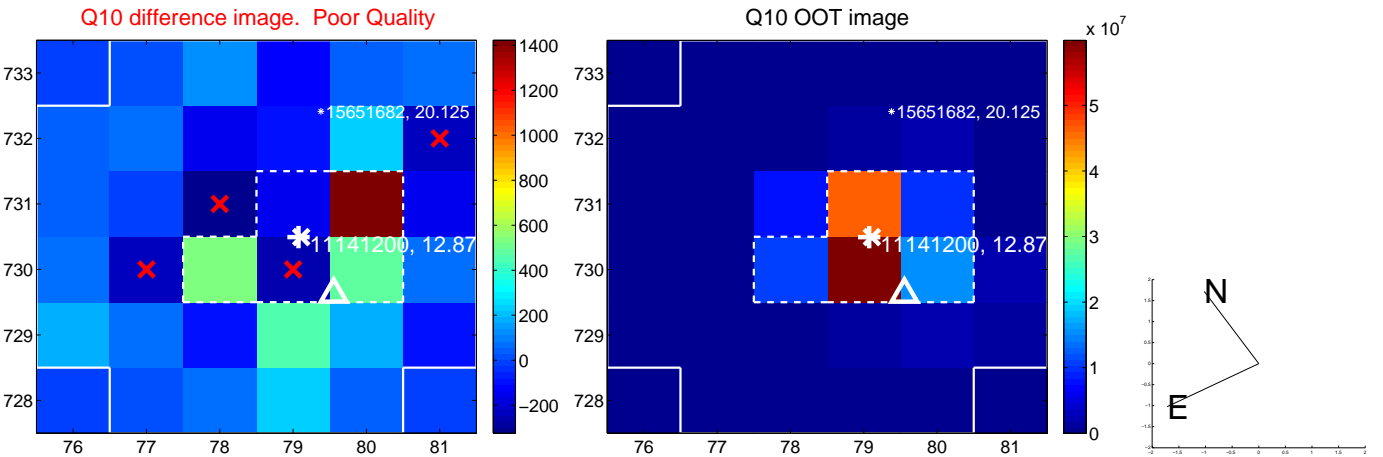
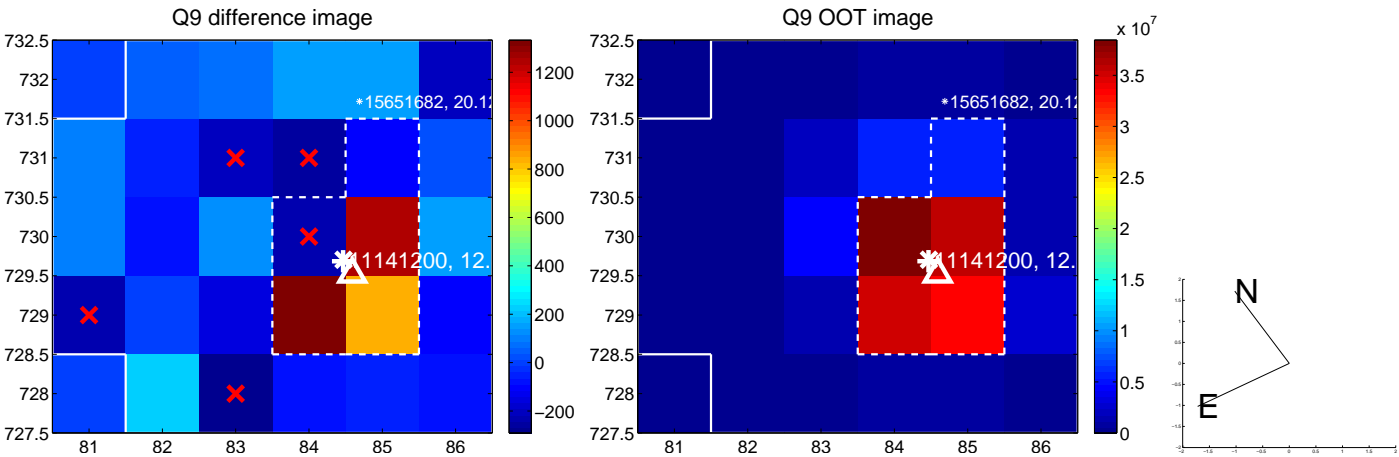
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



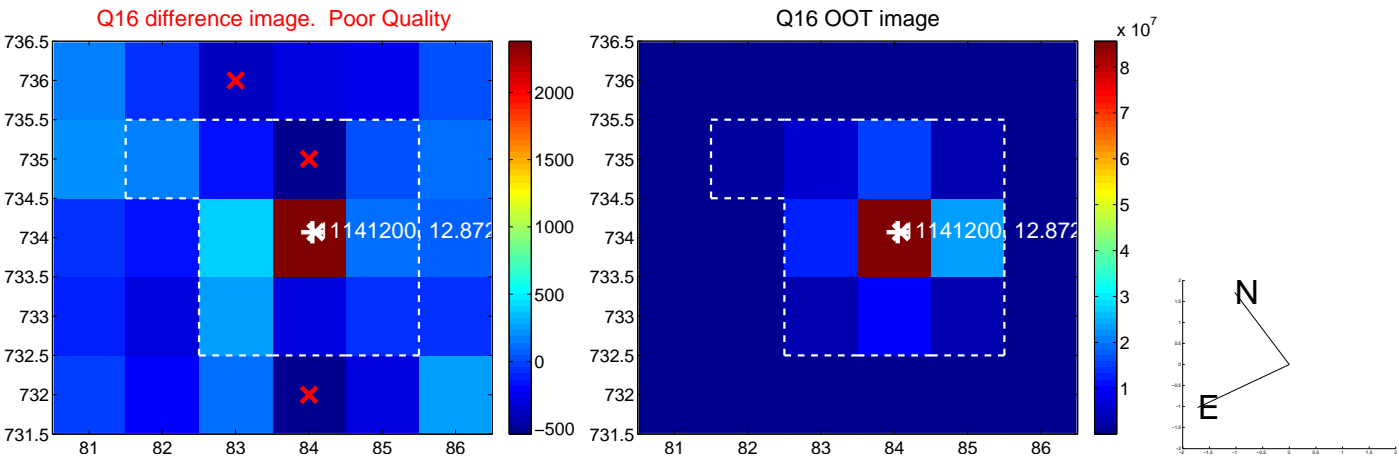
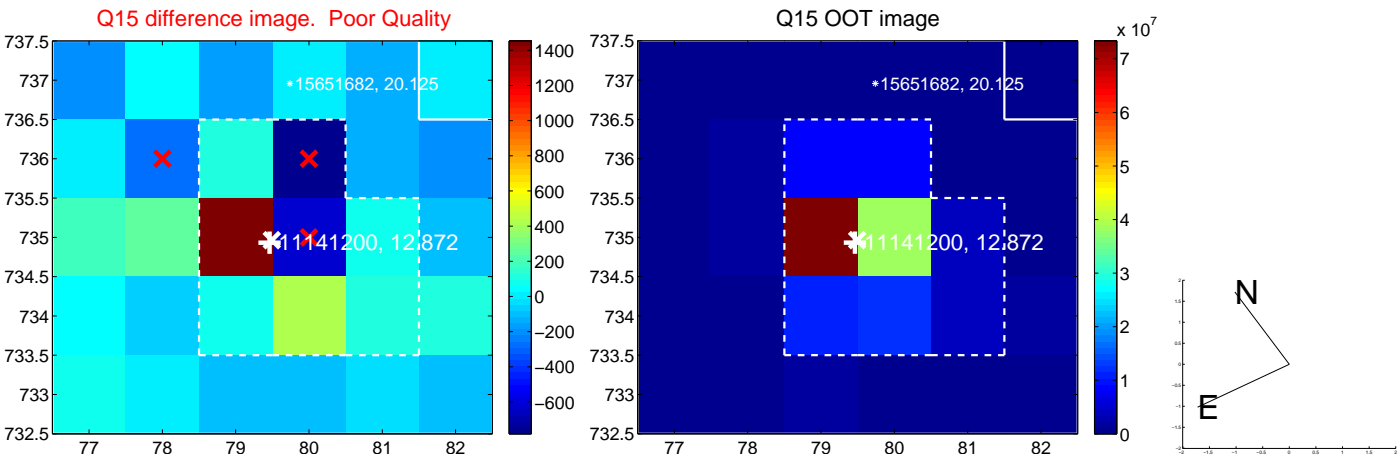
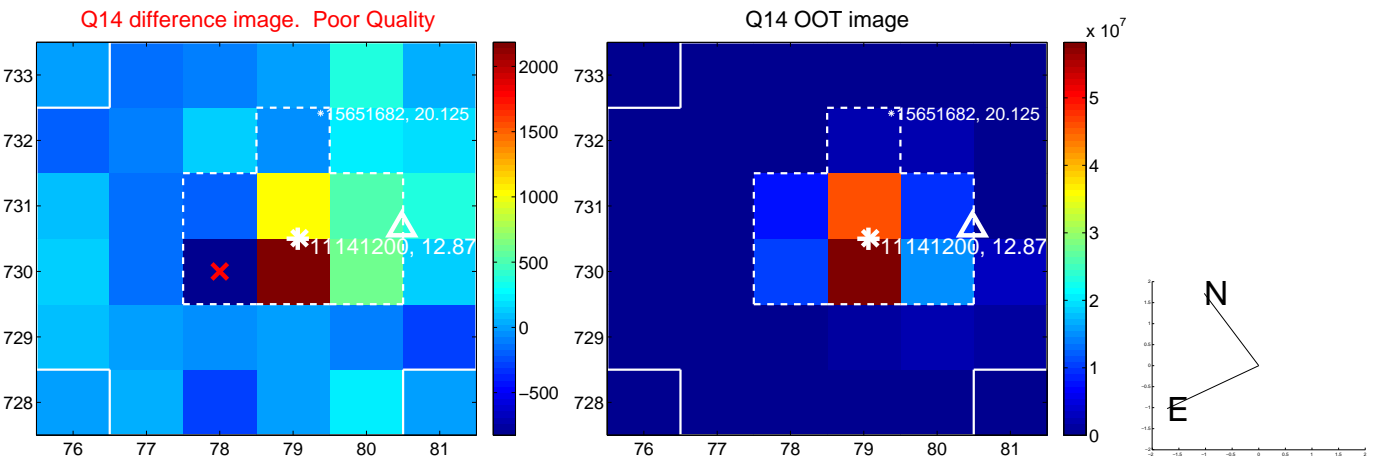
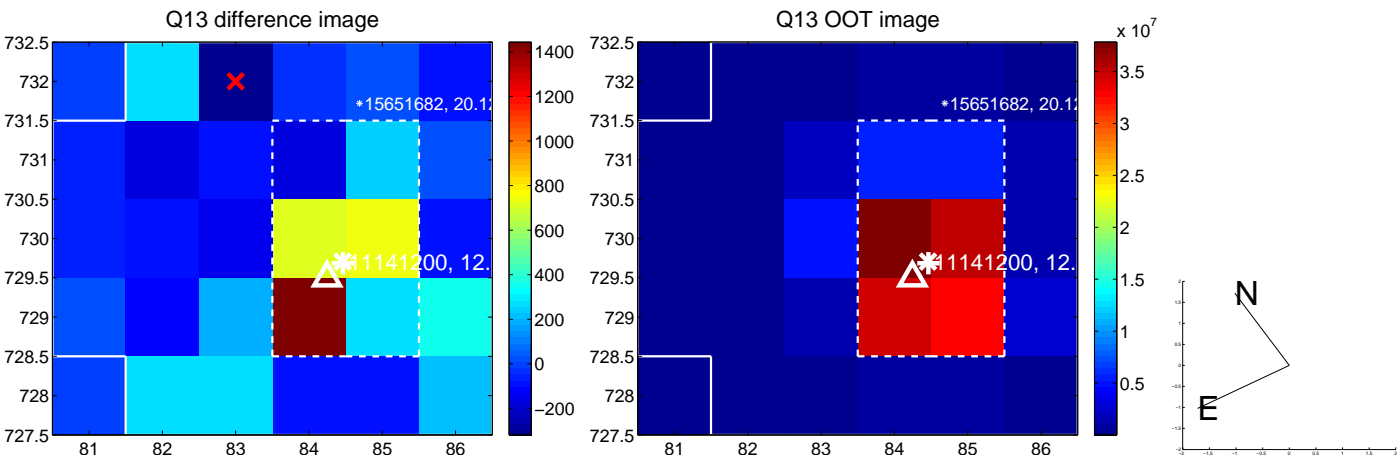
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



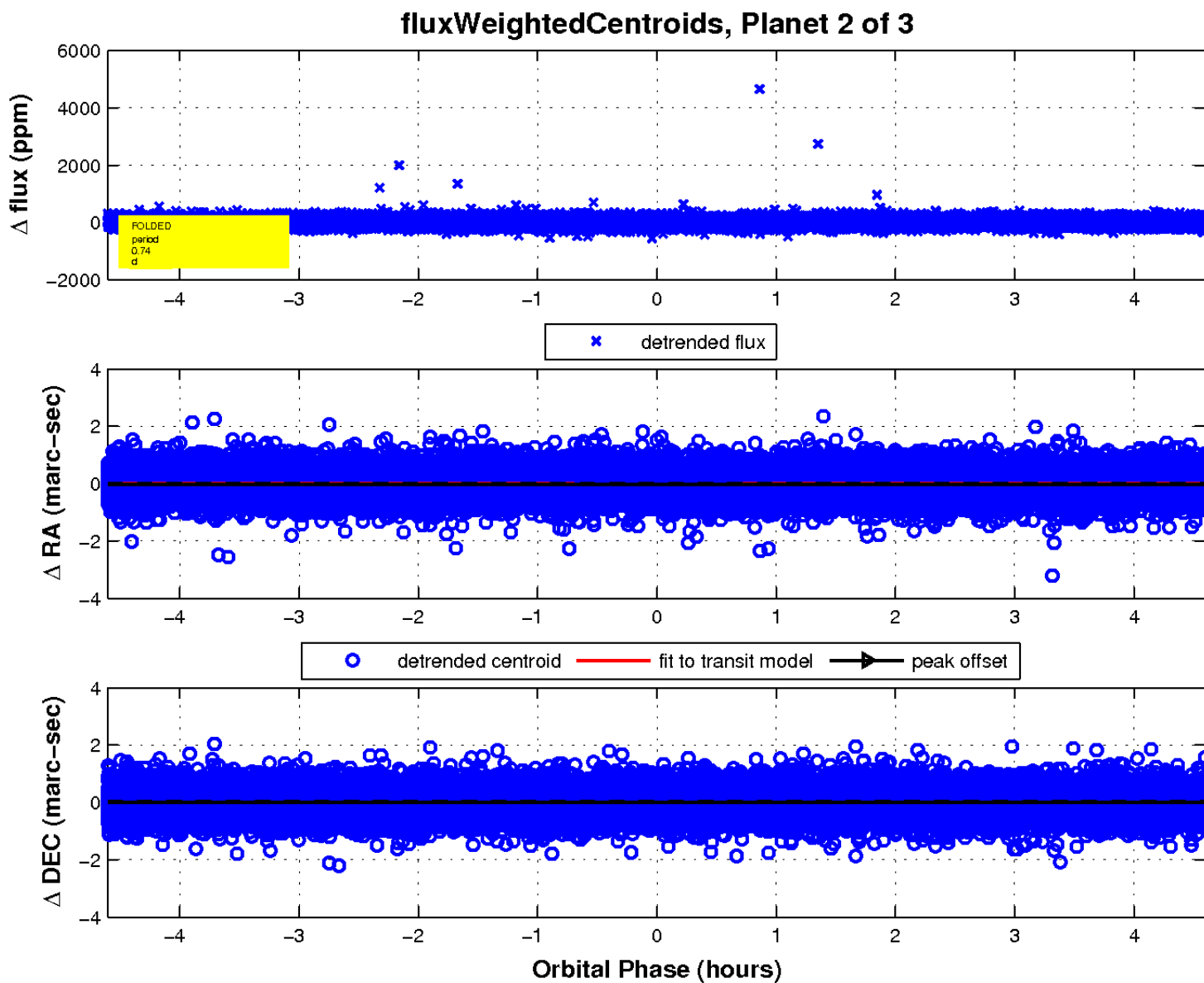
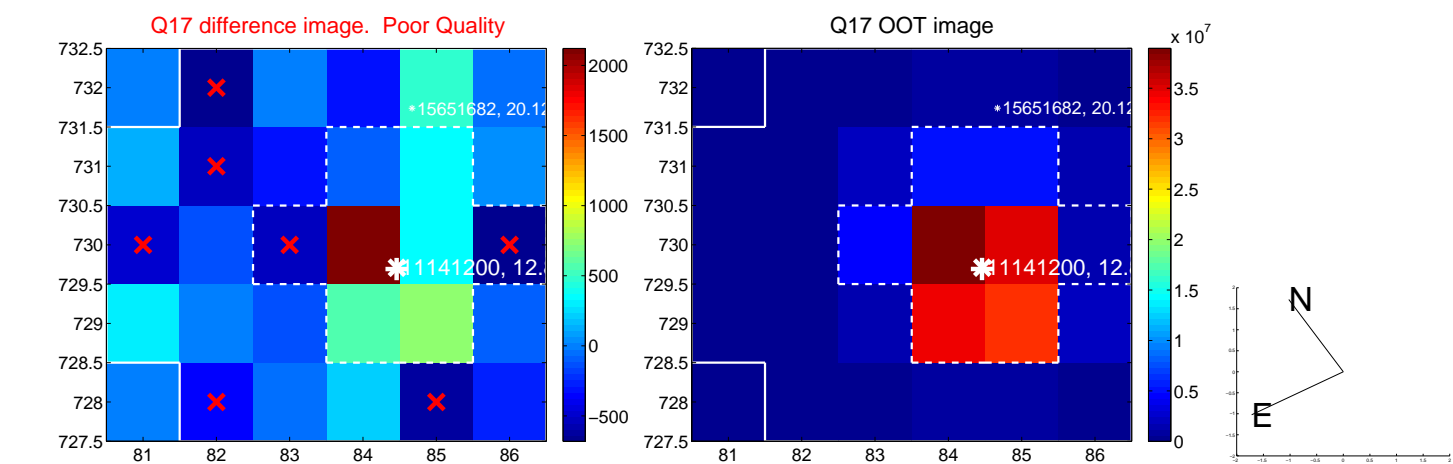
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

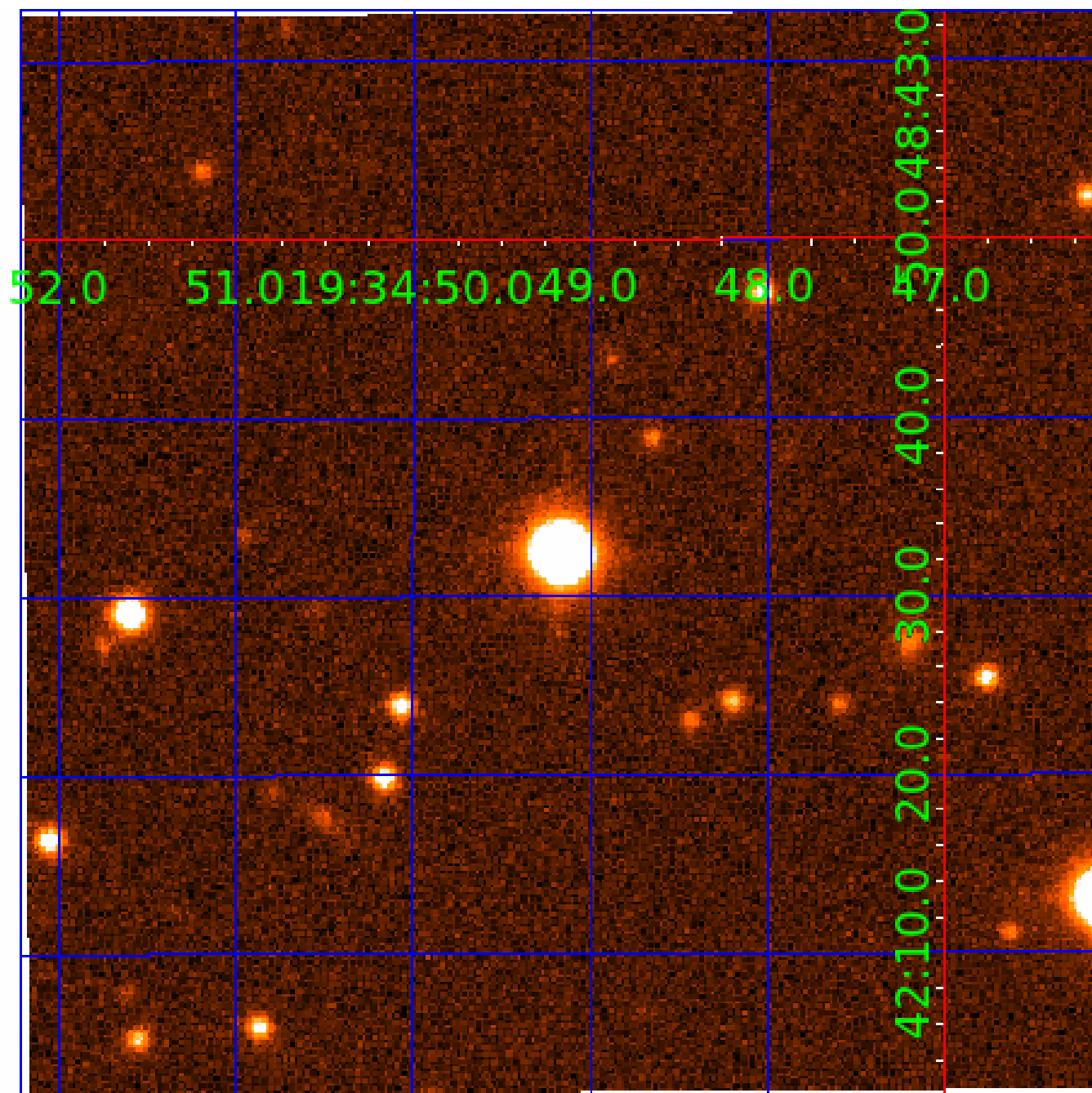


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011141200

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})
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Robovetter Results

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011141200-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

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

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

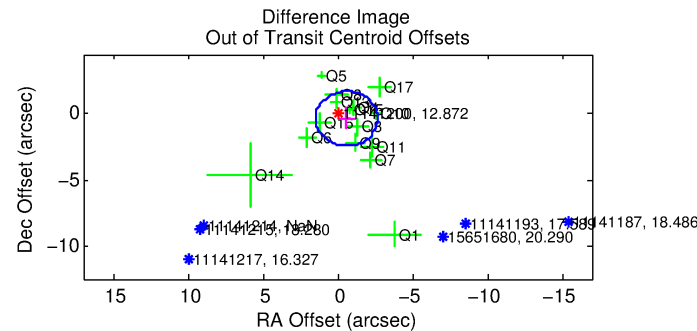
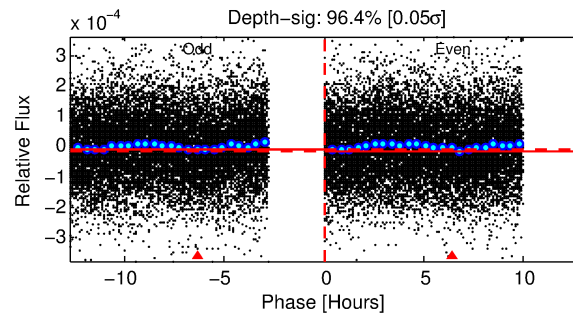
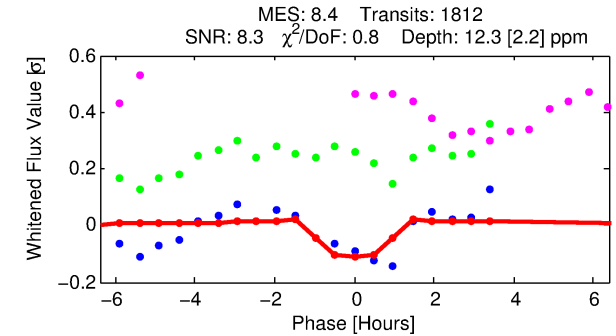
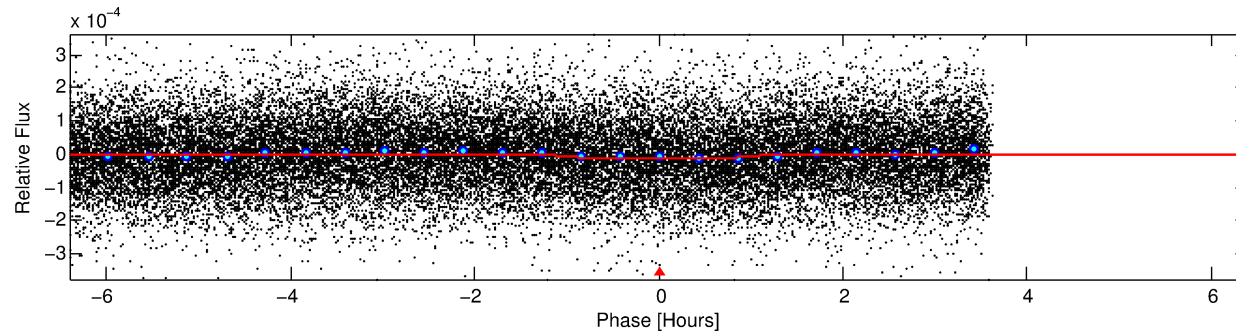
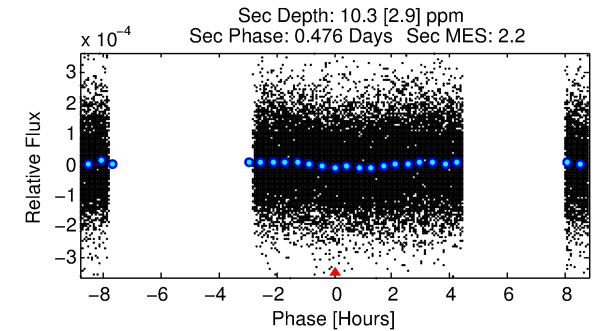
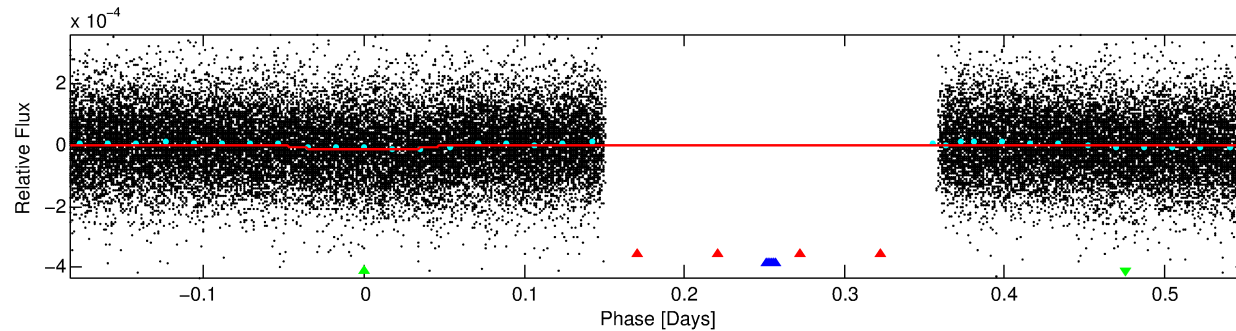
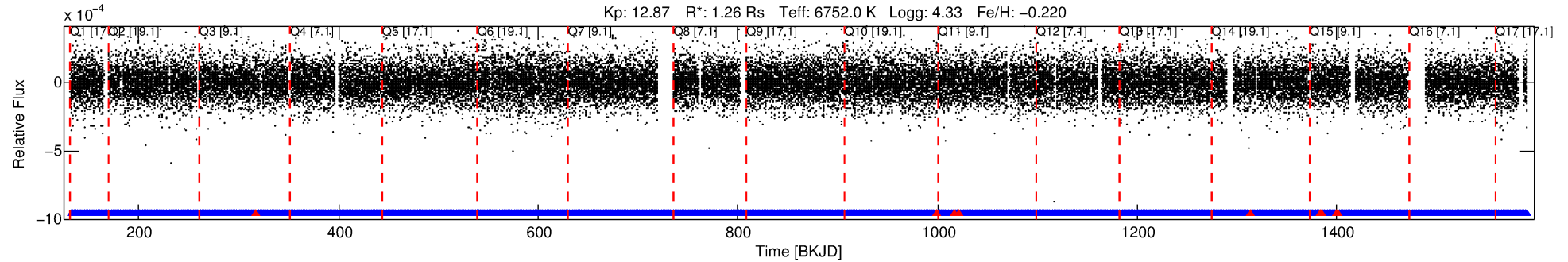
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011141200-03

No Significant Match Found

DV One-Page Summary

KIC: 11141200 Candidate: 3 of 3 Period: 0.736 d



DV Fit Results:

Period = 0.73627 [0.00001] d
Epoch = 132.0928 [0.0032] BKJD
Rp/R* = 0.0037 [0.0007]
a/R* = 1.56 [0.99]
b = 0.88 [0.27]
Seff = 10143.18 [3106.13]
Teq = 2559 [196] K
Rp = 0.51 [0.15] Re
a = 0.0171 [0.0032] AU
Ag = 6.40 [3.57] [1.51σ]
Teffp = 6293 [800] K [4.53σ]

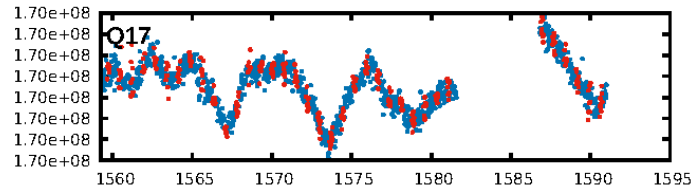
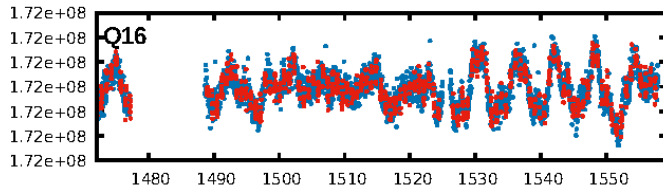
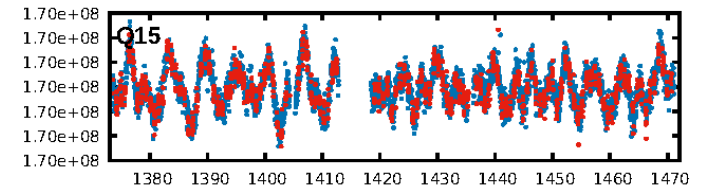
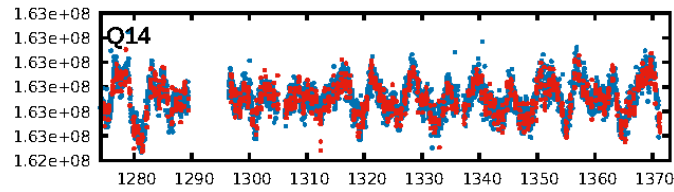
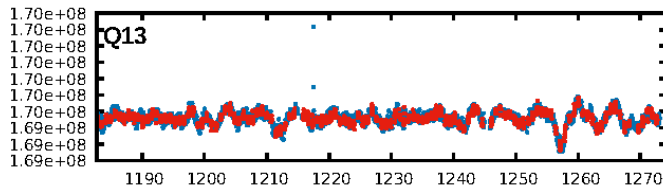
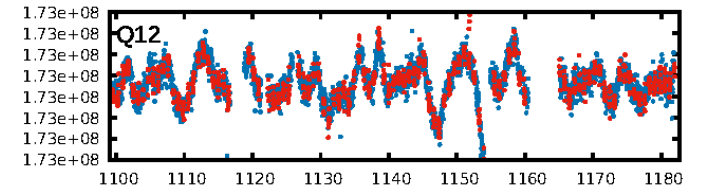
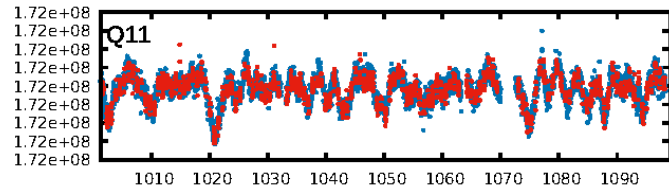
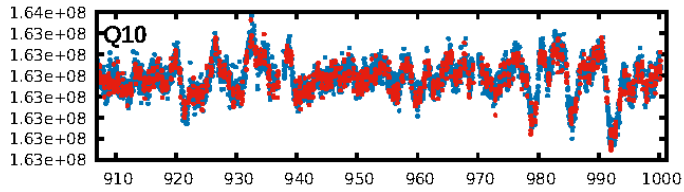
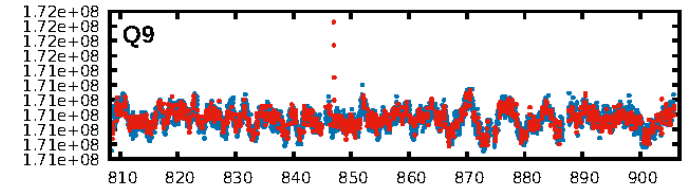
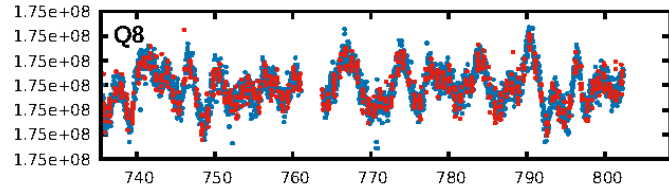
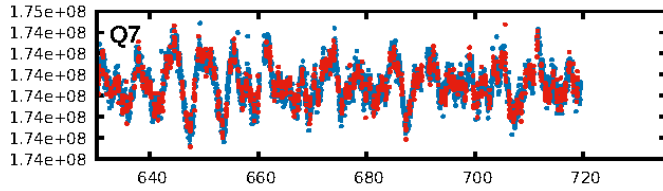
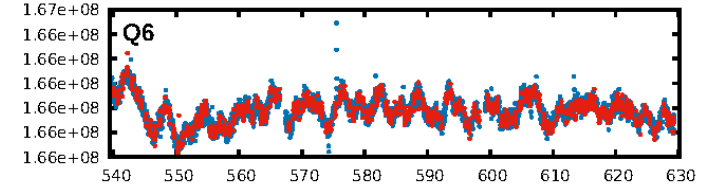
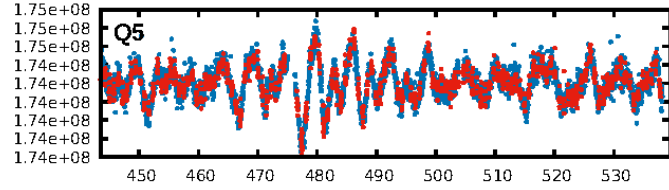
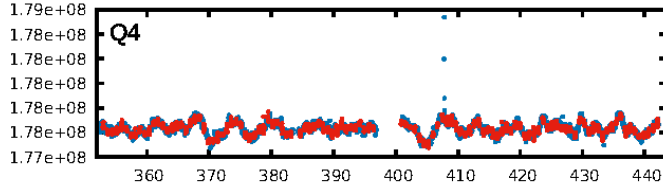
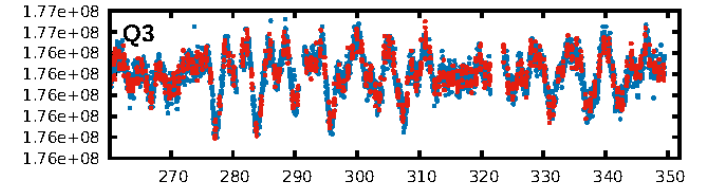
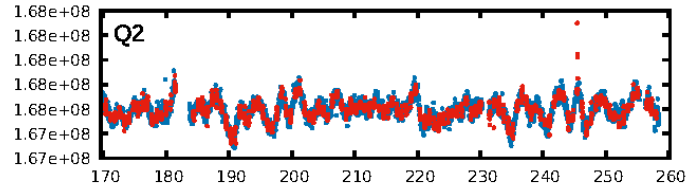
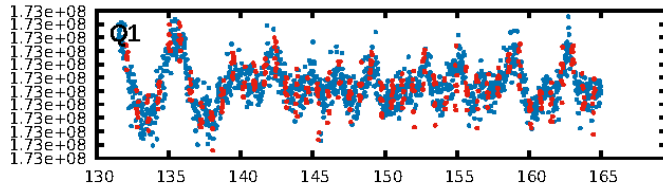
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [768.36σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.16e-13
RollingBand-fgt: 0.99 [1722/1731]
GhostDiagnostic-chr: 3.418
Centroid-sig: 17.4%
Centroid-so: 1.597 arcsec [1.38σ]
OotOffset-rm: 0.695 arcsec [1.01σ]
KicOffset-rm: 0.634 arcsec [0.90σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 0.00 [0/17]

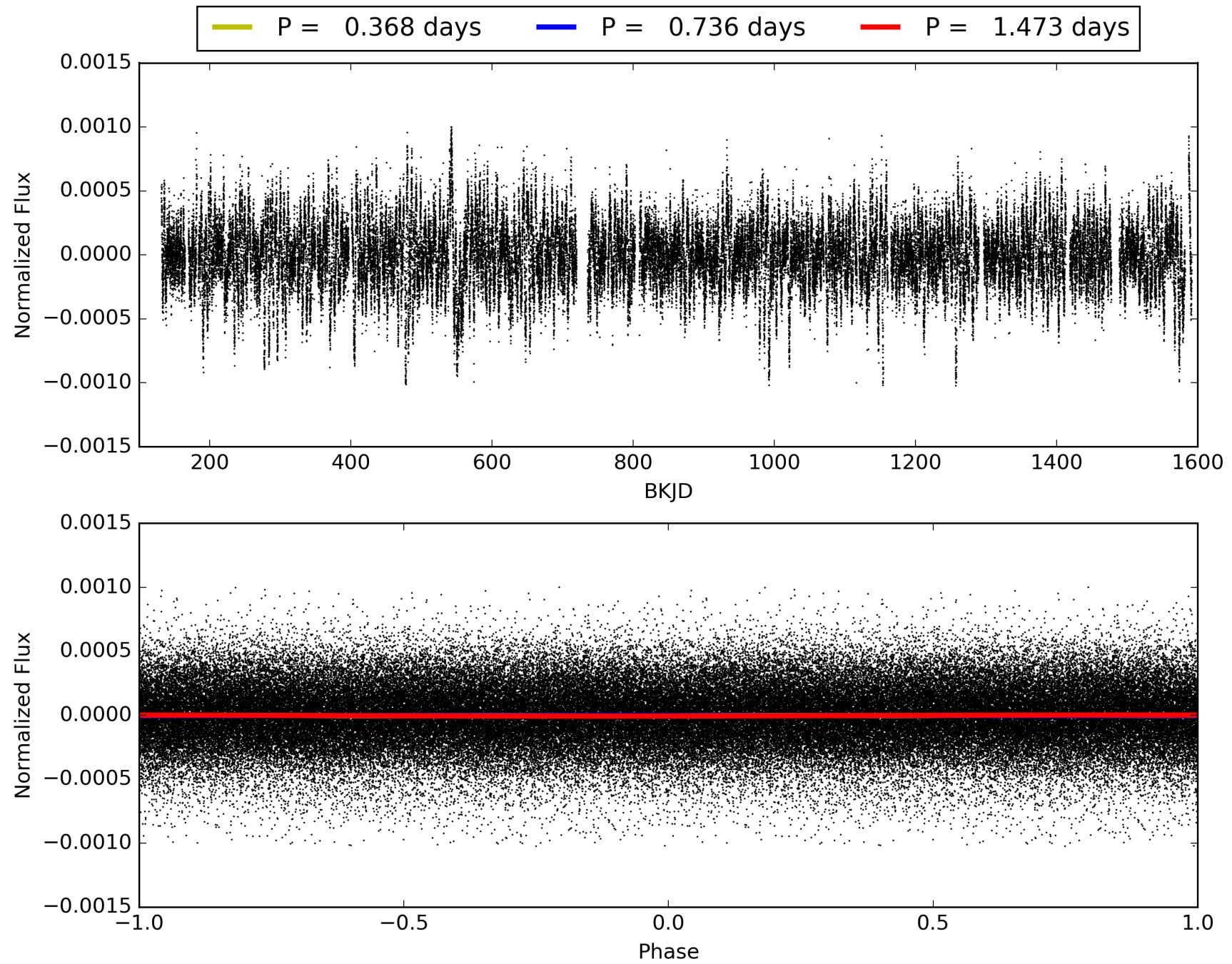
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:27:45 Z

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

TCE 011141200-03, PDC Light Curves

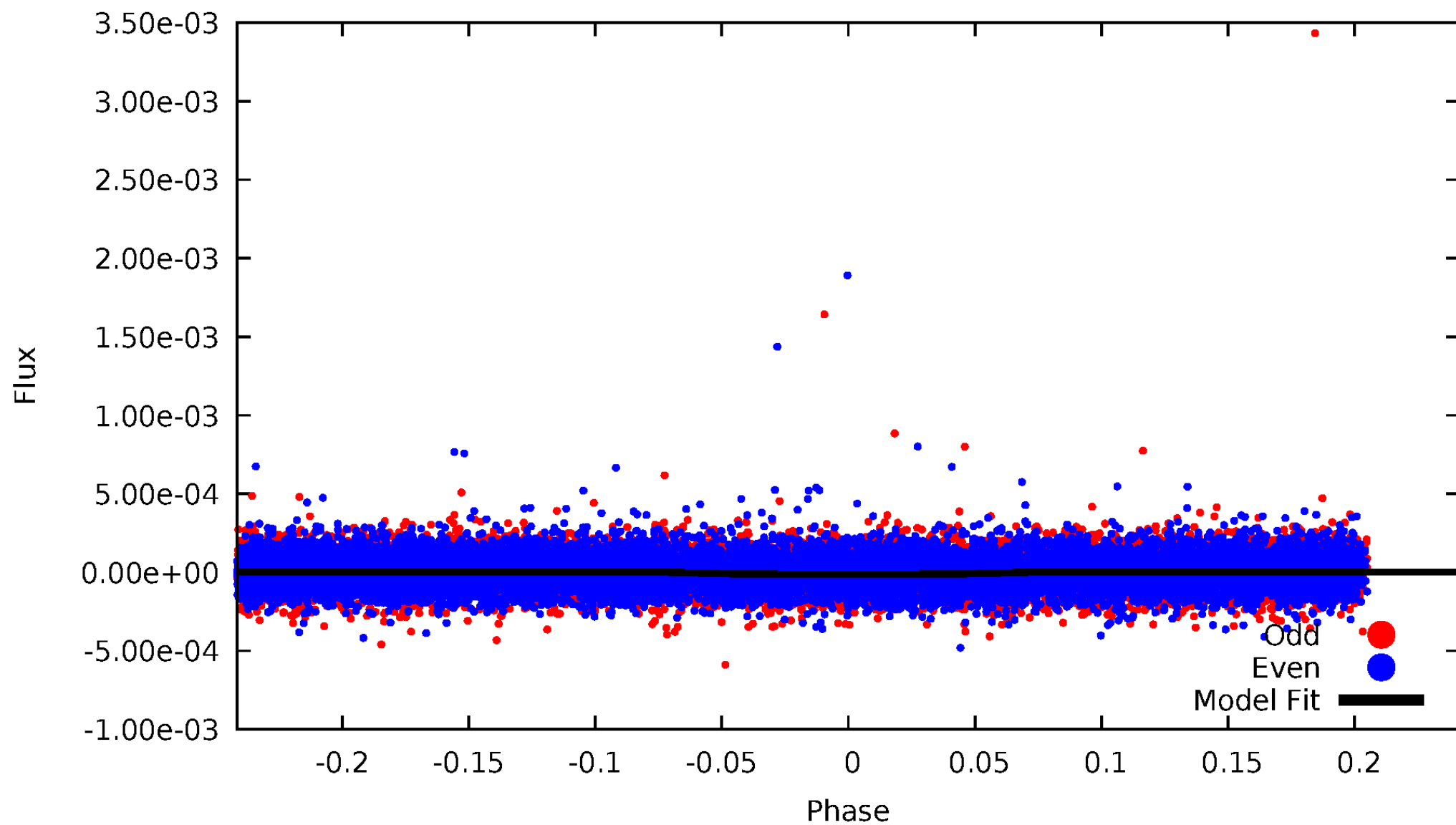


TCE 011141200-03



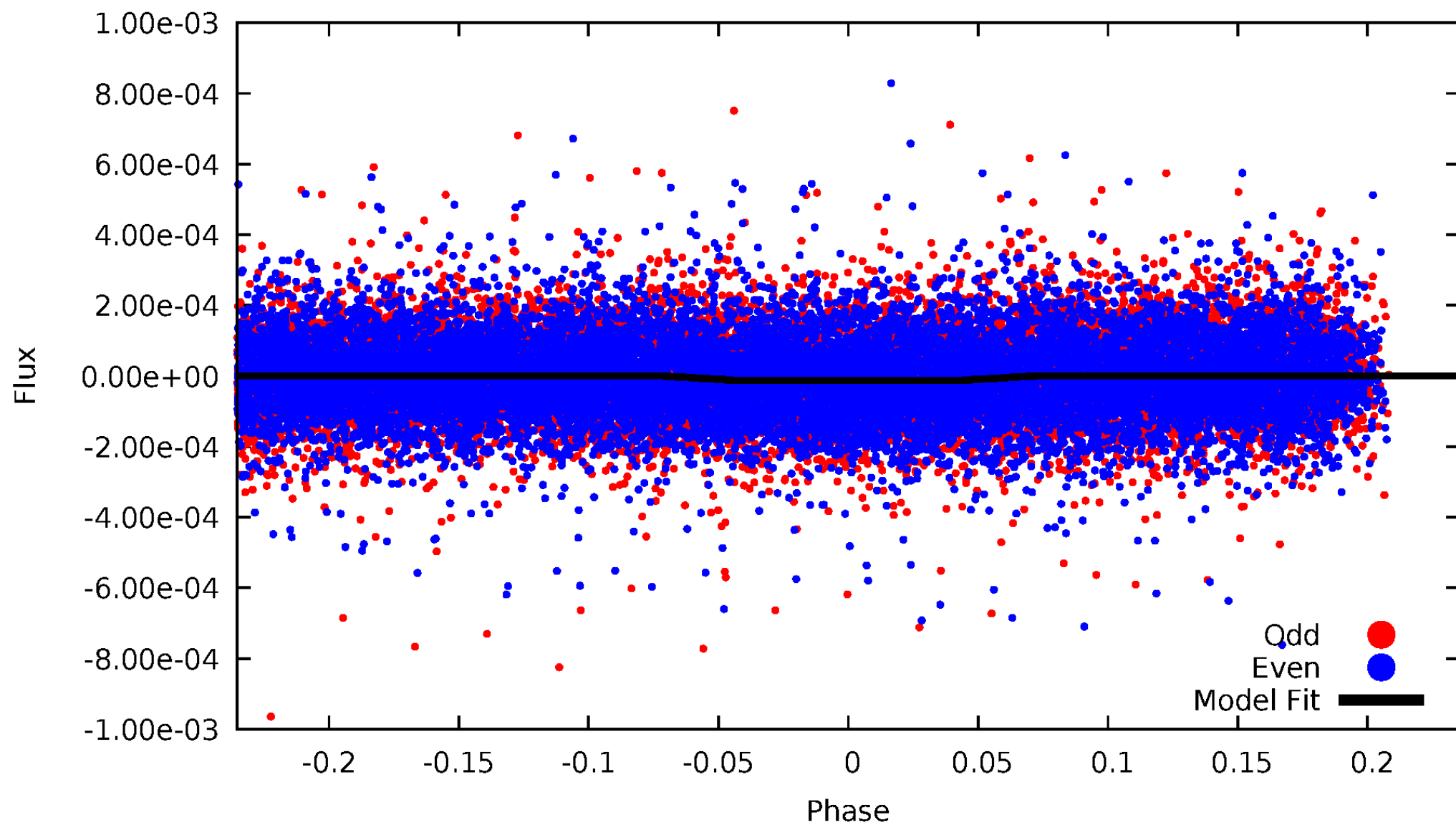
DV Odd/Even

TCE 011141200-03



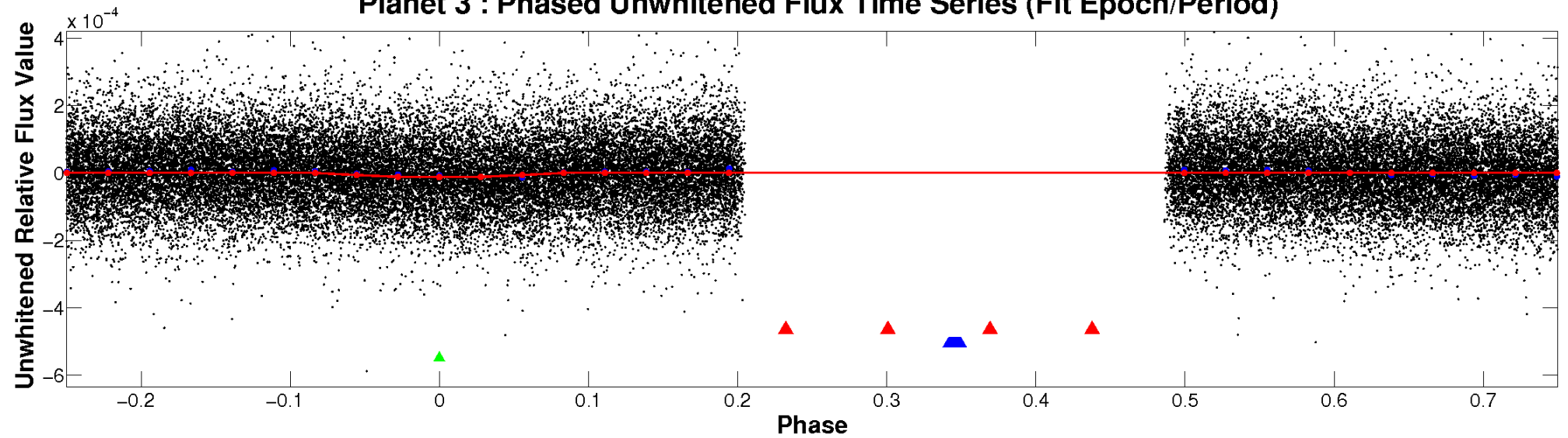
ALT Odd/Even

TCE 011141200-03

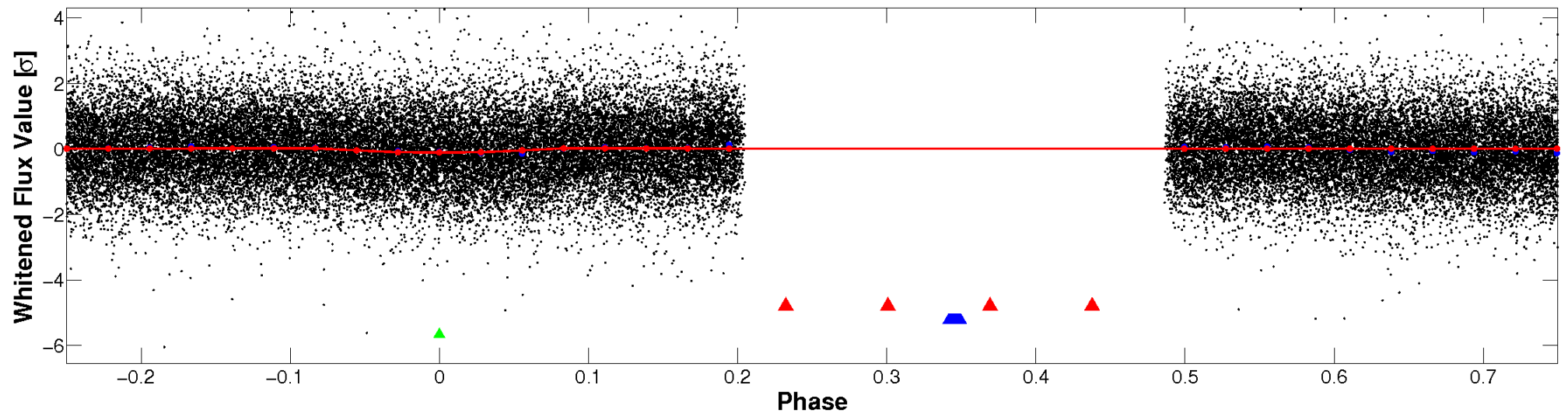


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

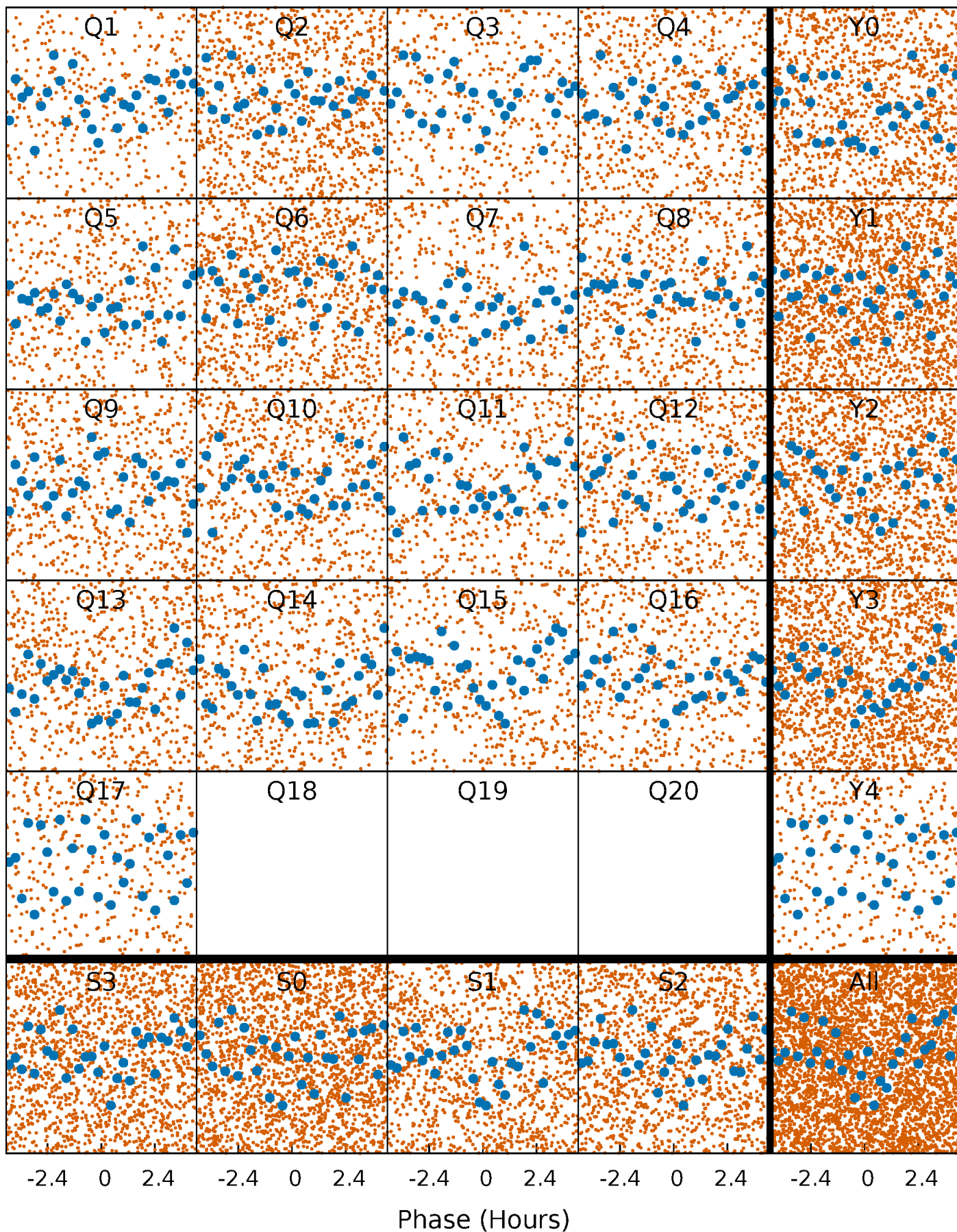


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



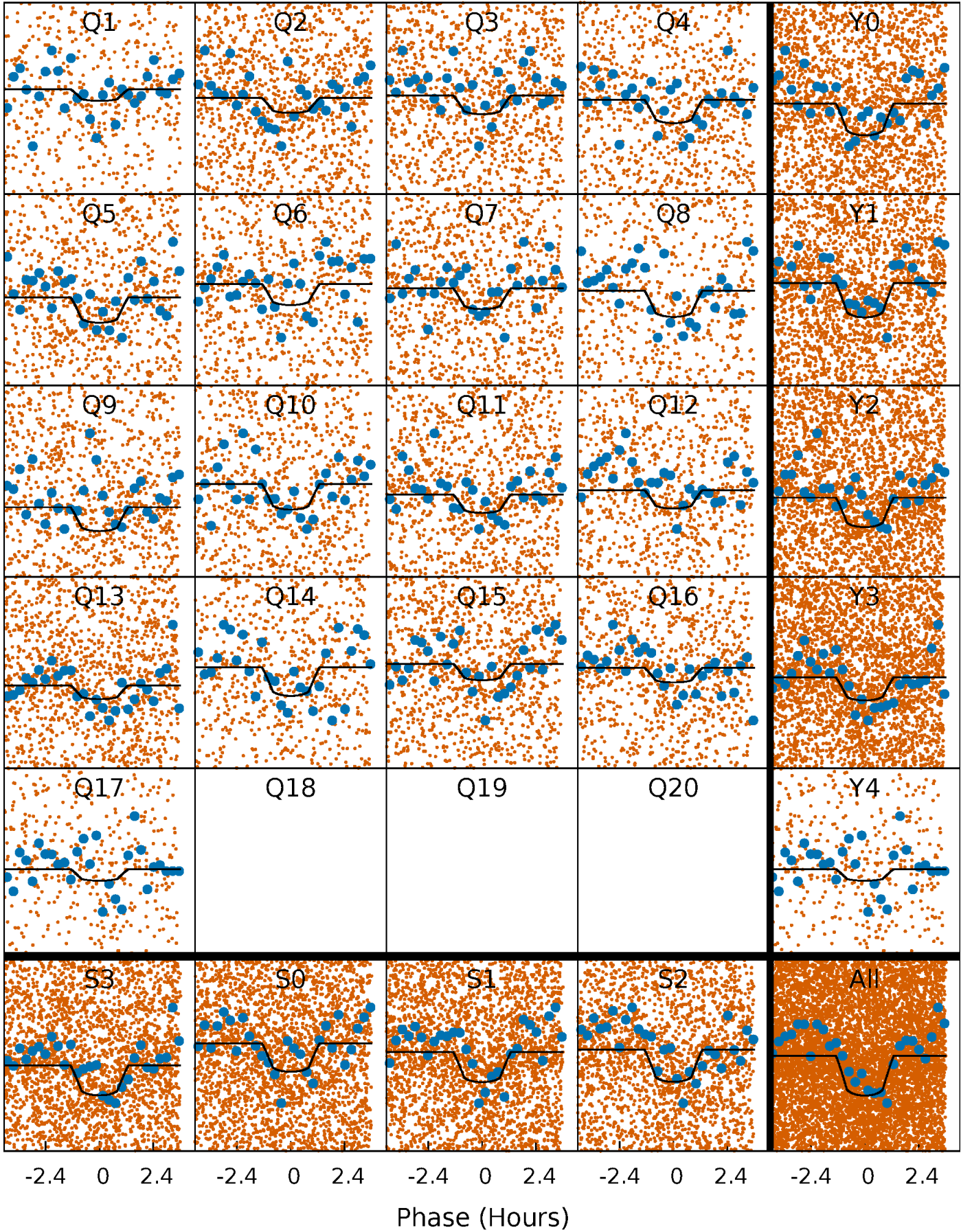
PDC Quarter-Phased Transit Curves

TCE 011141200-03 P= 0.736273 Days $T_0=132.092824$ (BKJD)



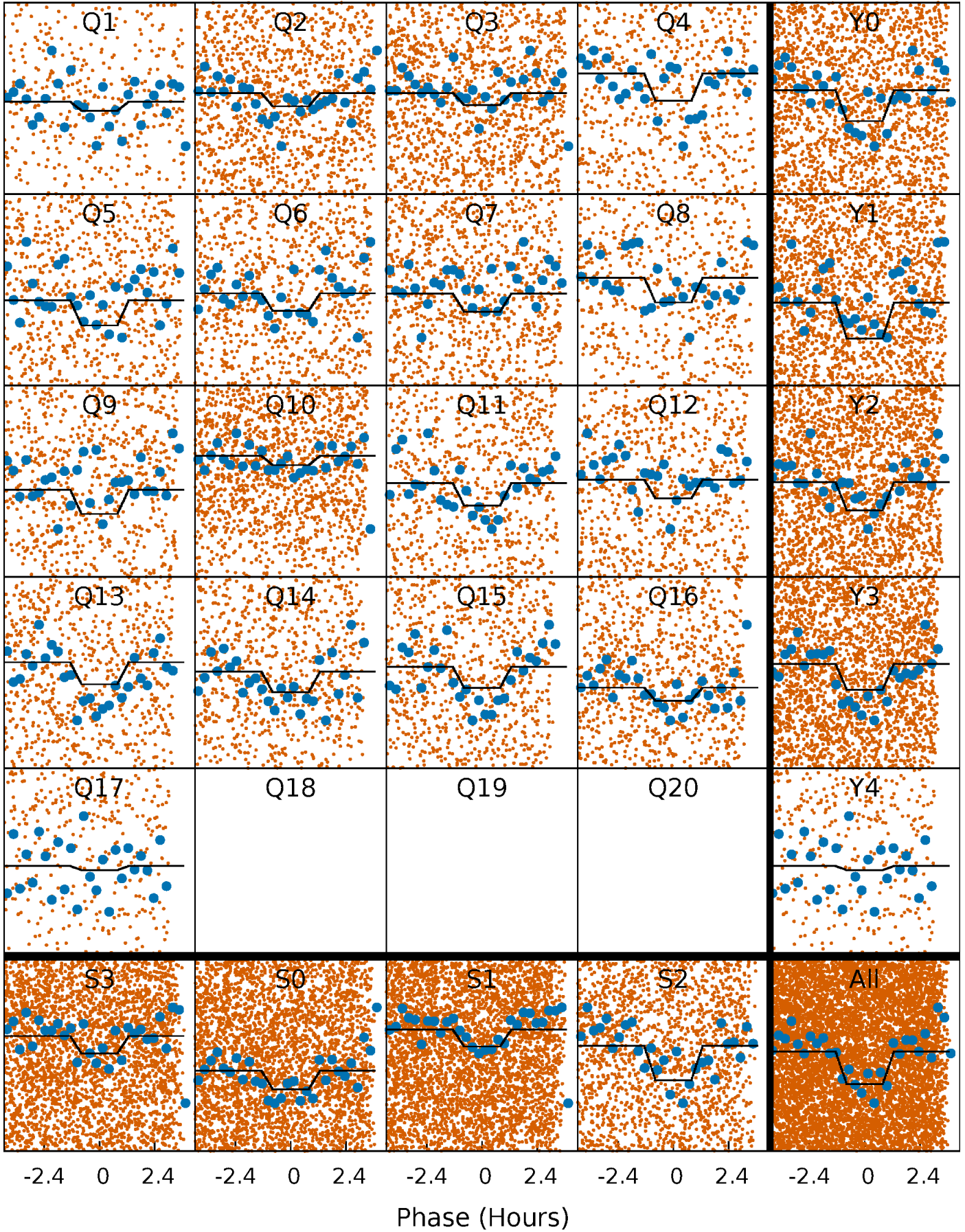
DV Quarter-Phased Transit Curves

TCE 011141200-03 $P = 0.736273$ Days $T_0 = 132.092824$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

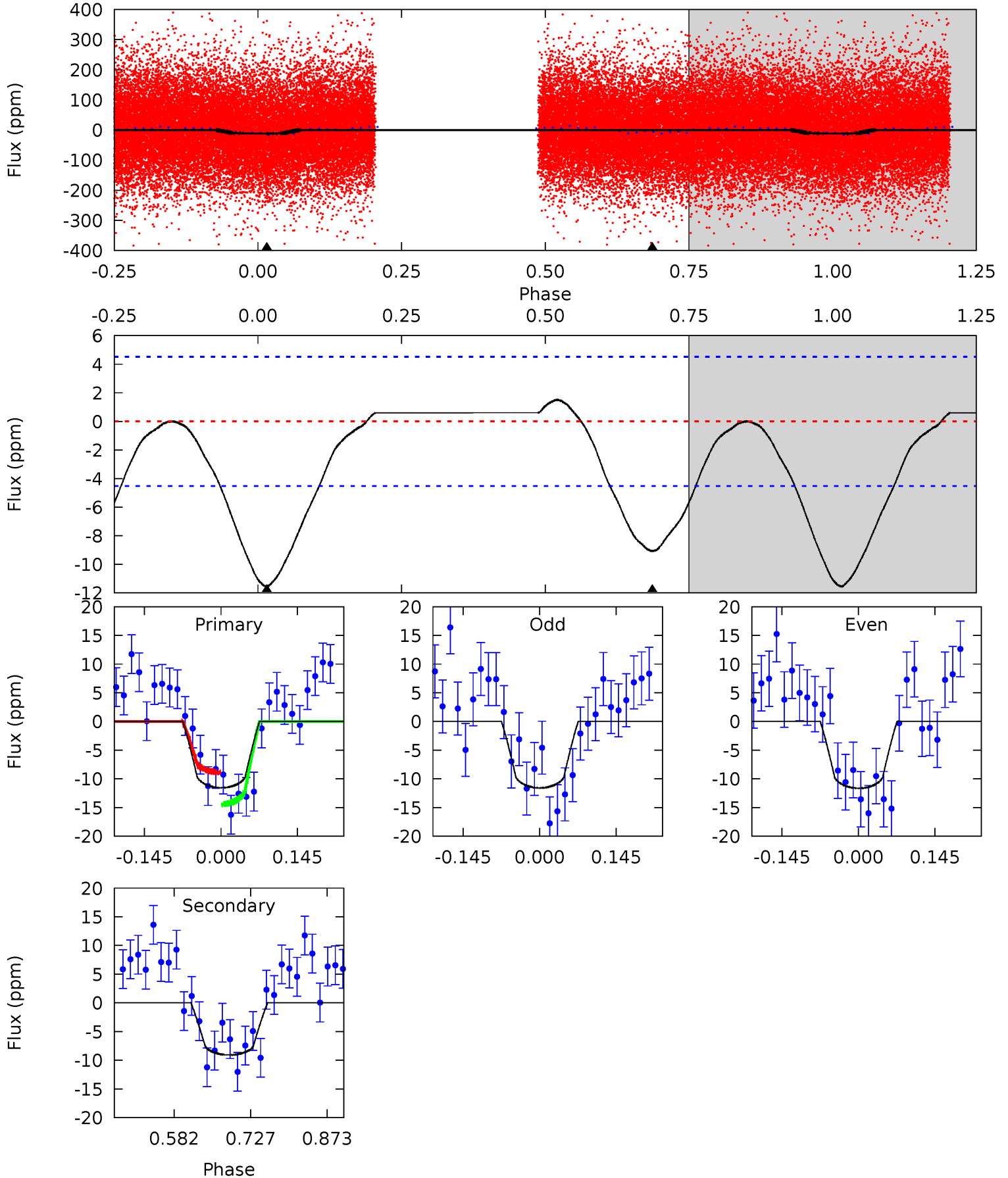
TCE 011141200-03 $P = 0.736284$ Days $T_0 = 132.090352$ (BKJD)



DV Model-Shift Uniqueness Test

011141200-03, P = 0.736273 Days, E = 131.356551 Days

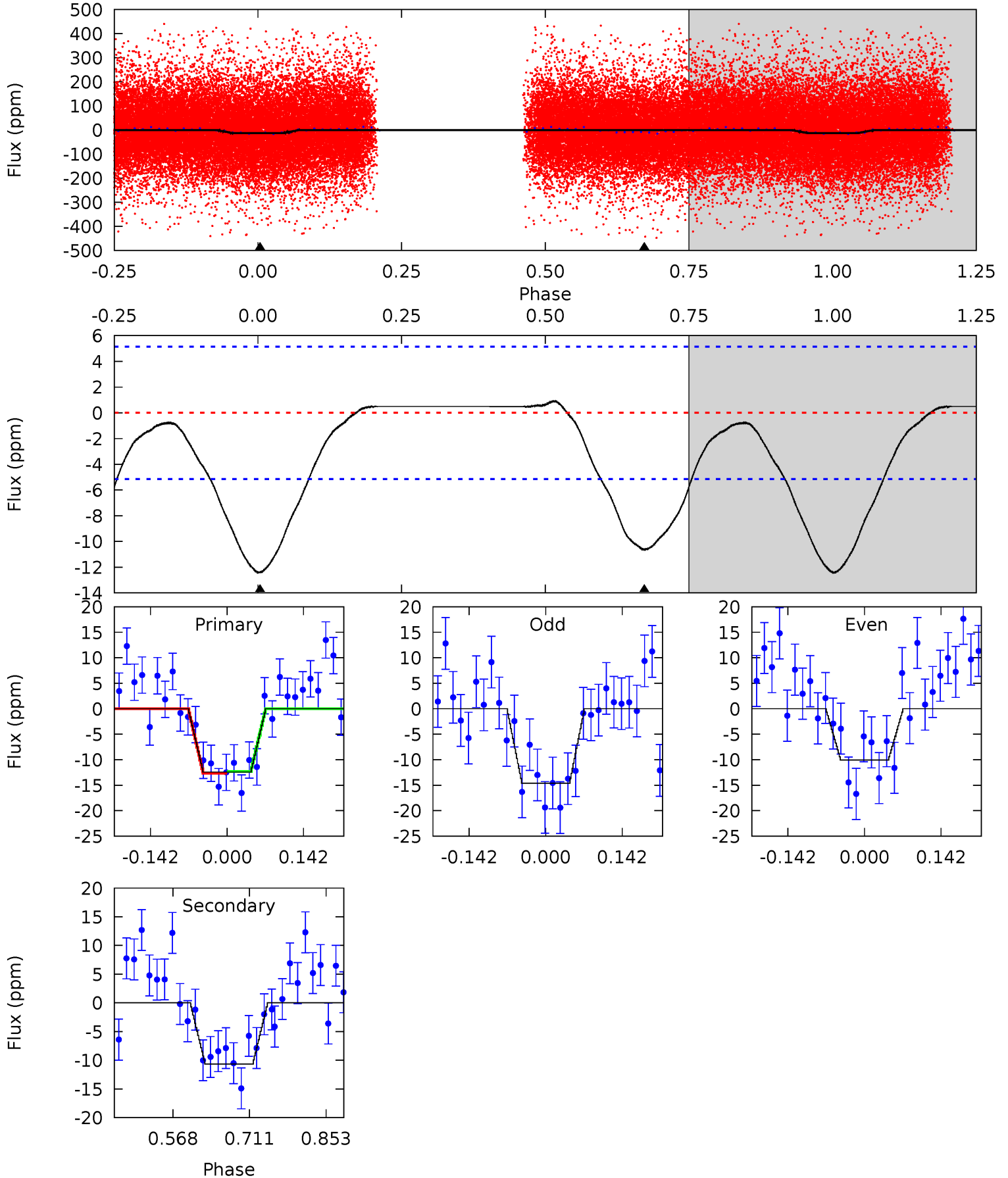
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	9.00	0	0	4.49	1.46	0.73	11.5	11.5	9.00	9.00	0.03	0.91	0.12	2.76



Alt Model-Shift Uniqueness Test

011141200-03, P = 0.736284 Days, E = 131.354068 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	9.29	0	0	4.49	1.47	0.63	10.8	10.8	9.29	9.29	1.98	0.81	0.07	0.15



Stellar Parameters For KIC 011141200

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6752^{+161}_{-241}	$4.326^{+0.073}_{-0.147}$	$-0.220^{+0.250}_{-0.300}$	$1.263^{+0.284}_{-0.153}$	$1.238^{+0.137}_{-0.182}$	$0.866^{+0.286}_{-0.333}$
	+2%/-4%	+2%/-3%	+114%/-136%	+22%/-12%	+11%/-15%	+33%/-38%
Source	PHO1	FLK73	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 011141200-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-9 ± 1	$0.52^{+0.13}_{-0.10}$	3607^{+197}_{-168}	5951^{+706}_{-565}	$5.350^{+2.990}_{-1.916}$
Alt.	-11 ± 1	$0.49^{+0.11}_{-0.11}$	3599^{+194}_{-163}	6414^{+920}_{-632}	$7.166^{+4.682}_{-2.543}$

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 $A_{obs} \gg 1.0$

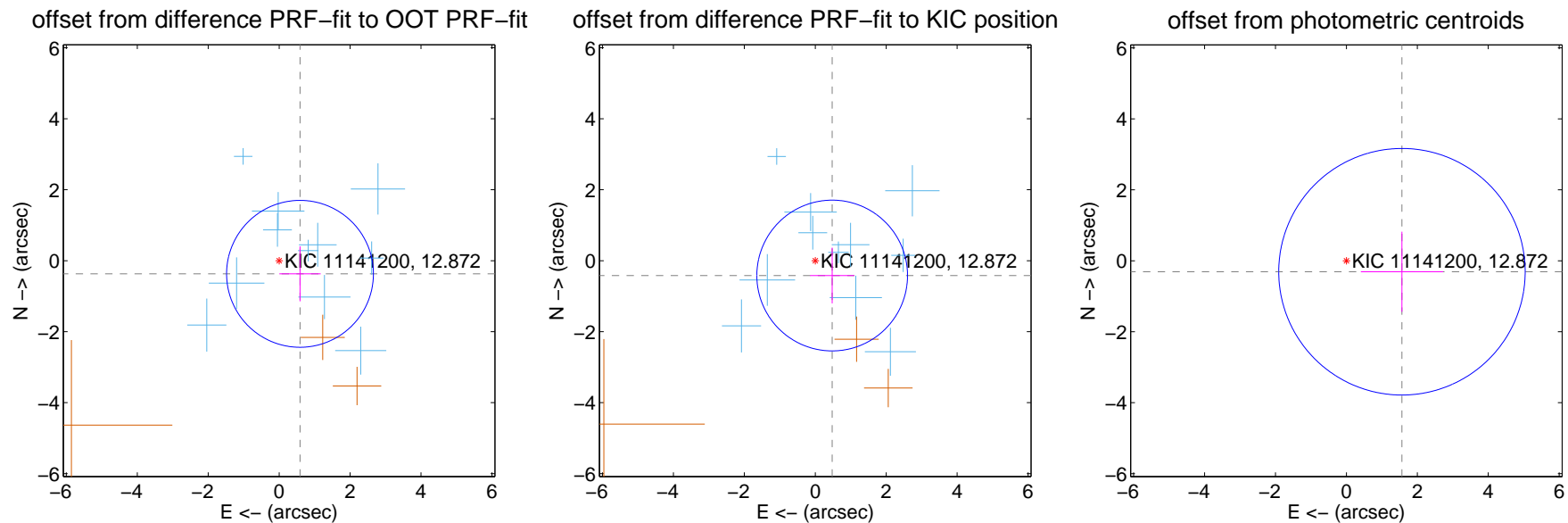
DV Centroid Data

Supplemental centroid analysis for 011141200-03. Kepler magnitude: 12.87. Transit SNR 8.29

There are 11 quarters with good PRF difference image offsets

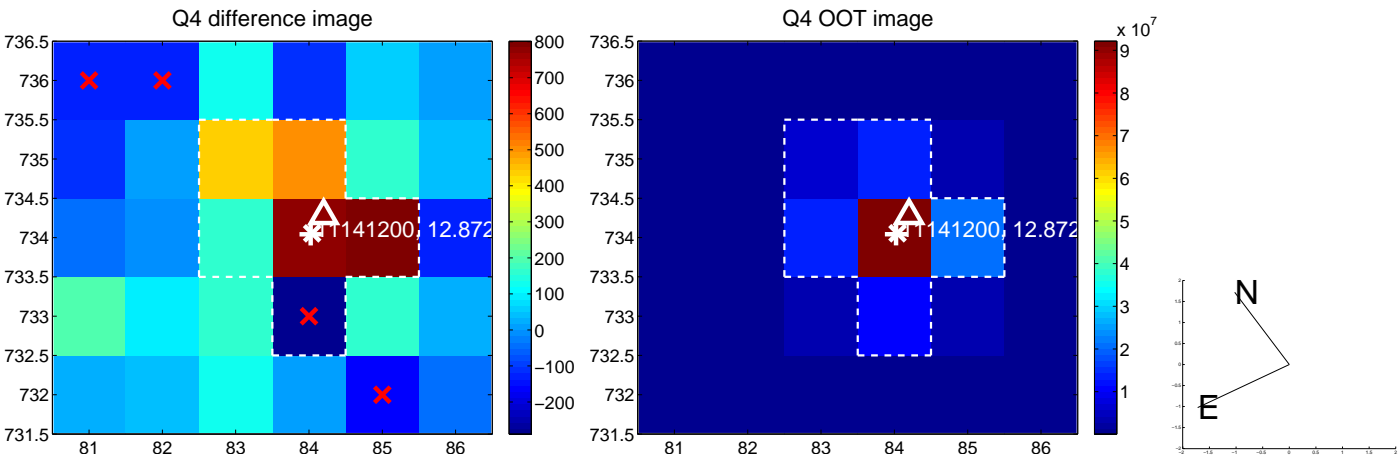
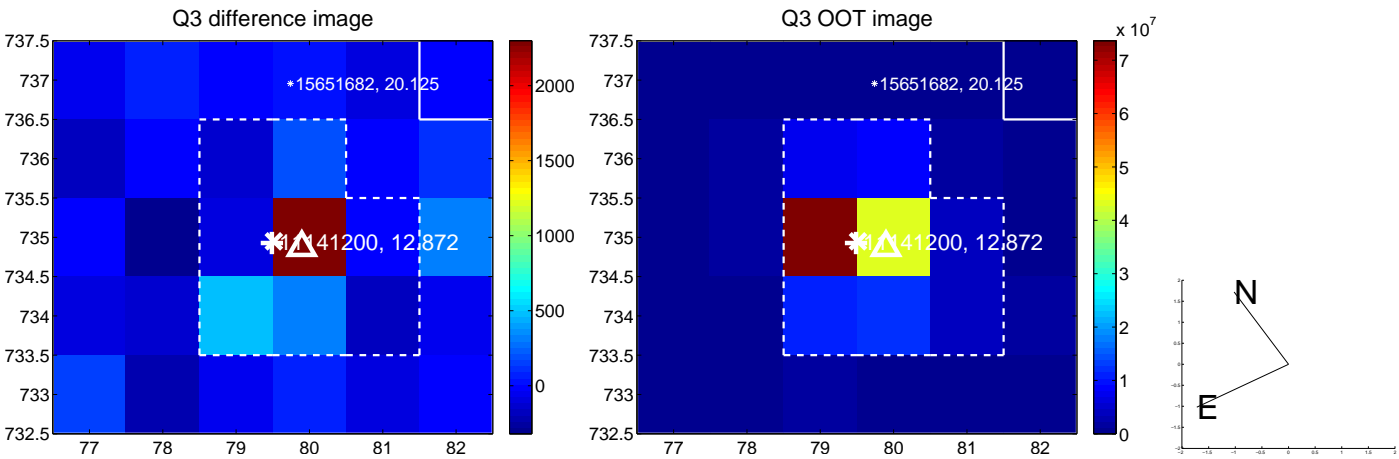
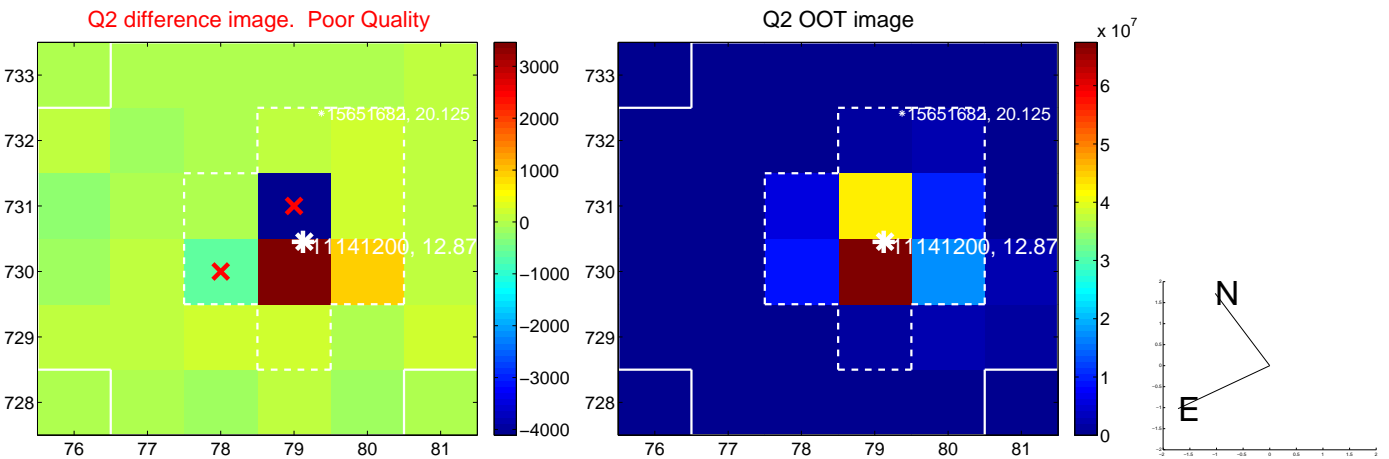
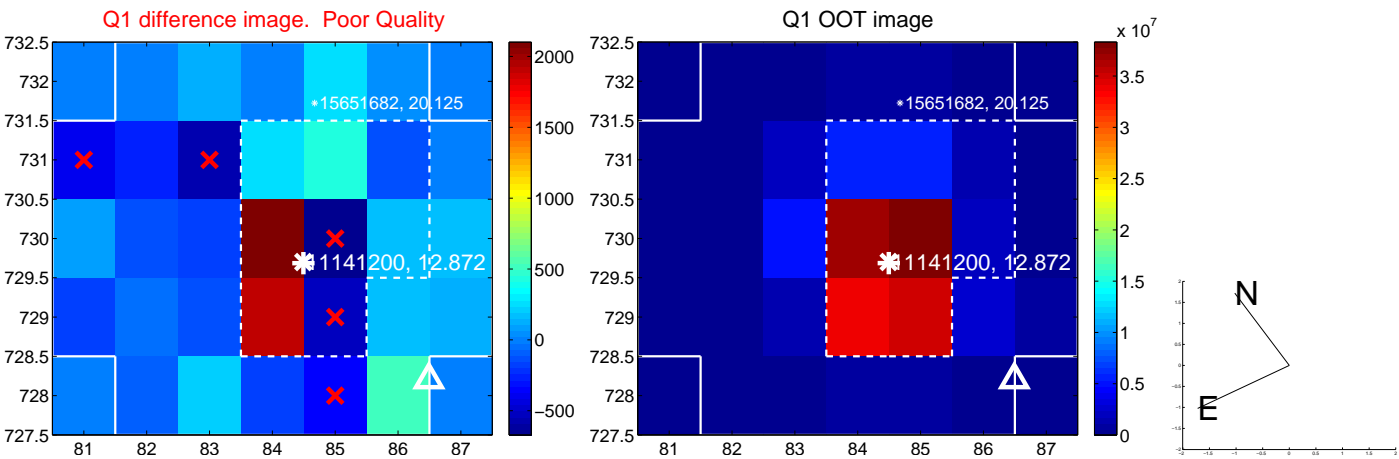
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.695 ± 0.690	1.01	-0.588 ± 0.584	-0.370 ± 0.774
PRF-fit source offset from KIC position	0.634 ± 0.708	0.90	-0.477 ± 0.621	-0.418 ± 0.784
photometric centroid source offset	1.60 ± 1.16	1.38	-1.57 ± 1.16	-0.31 ± 1.13

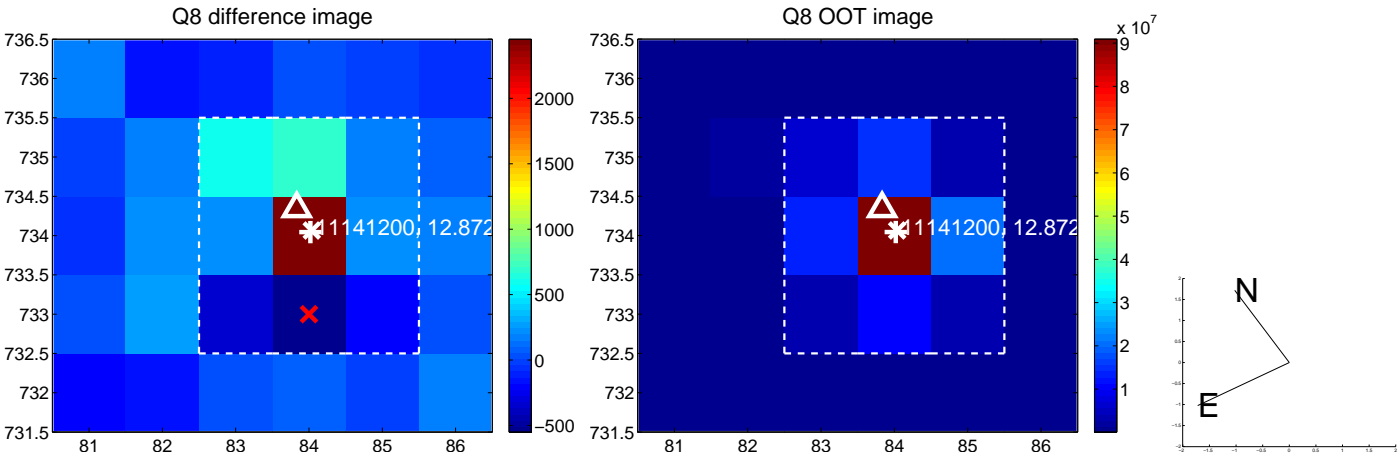
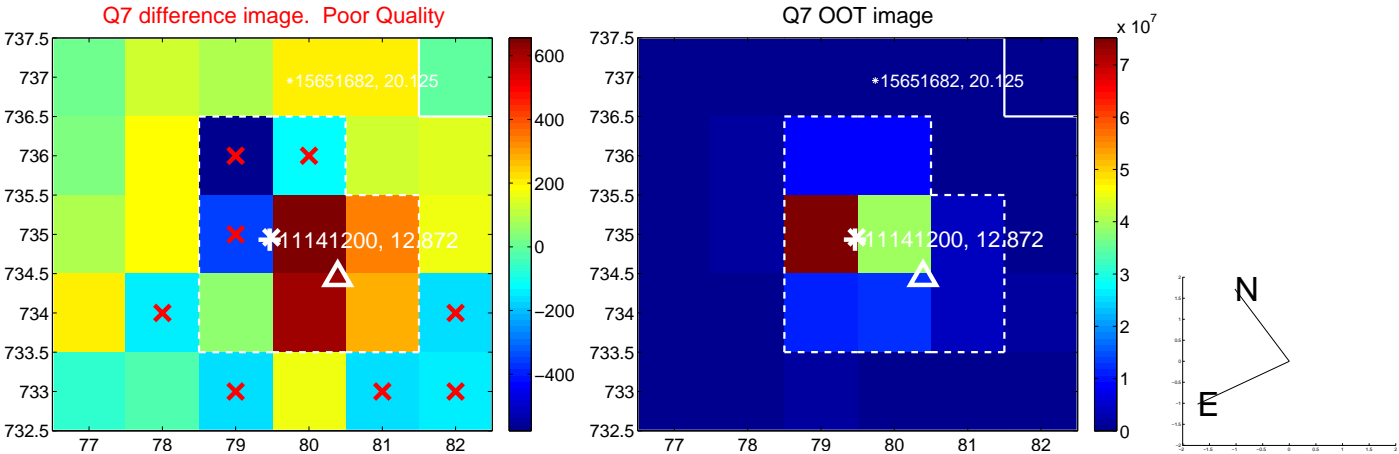
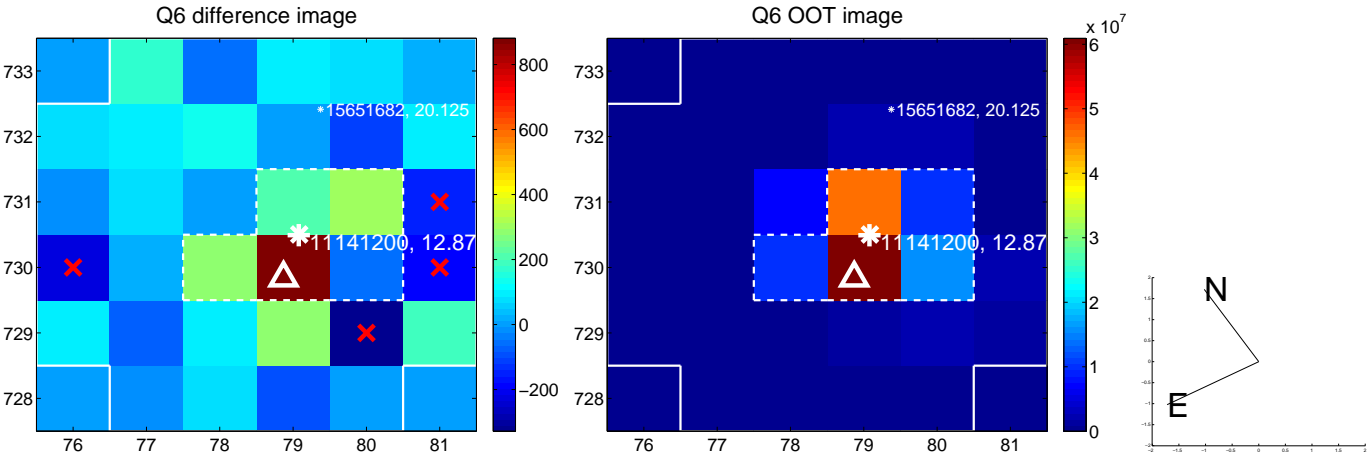
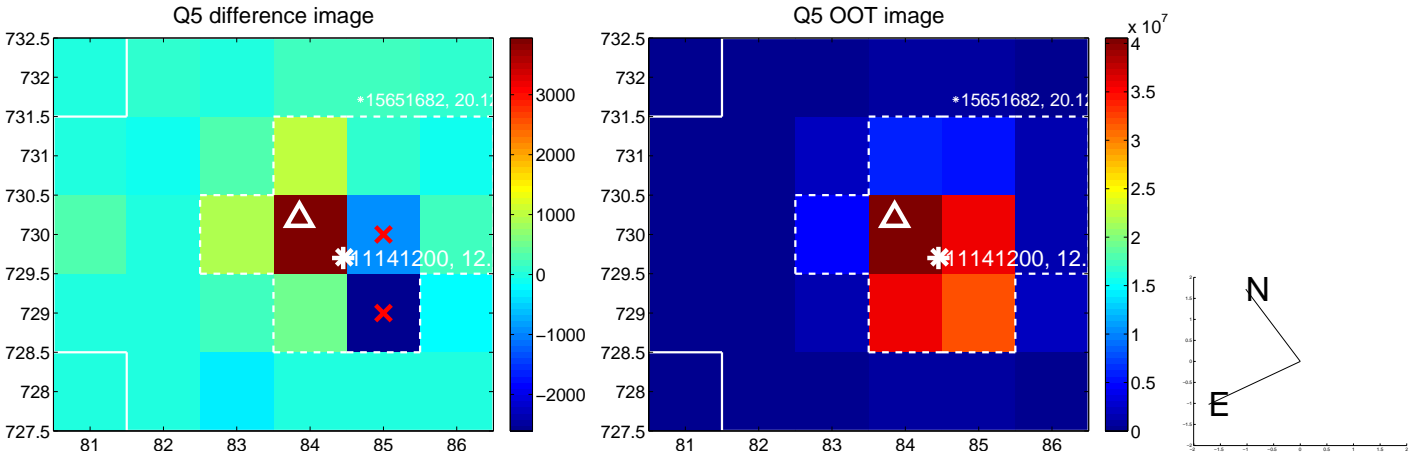


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

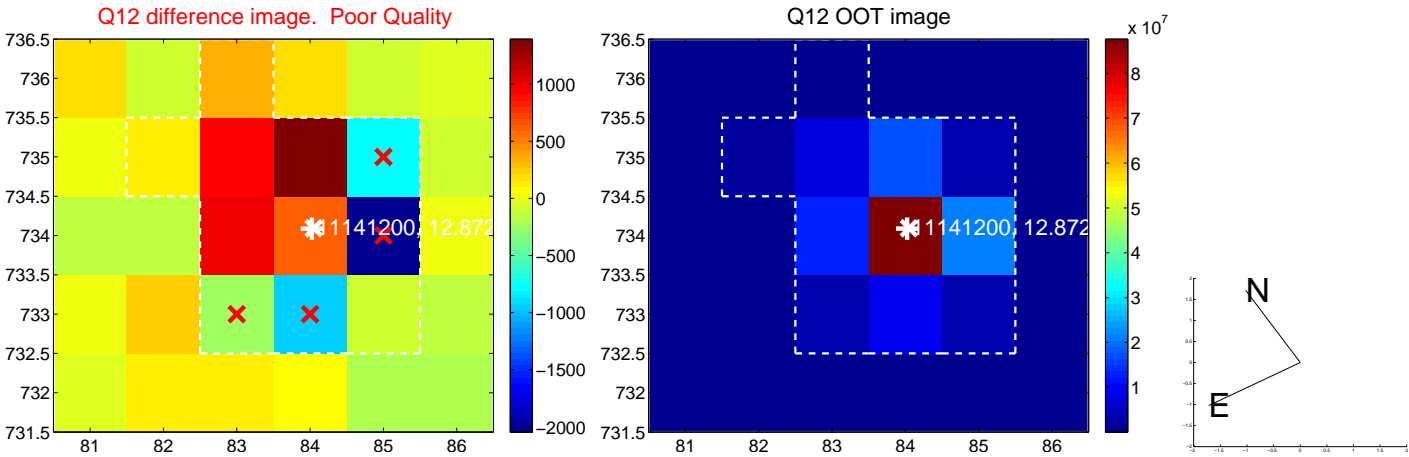
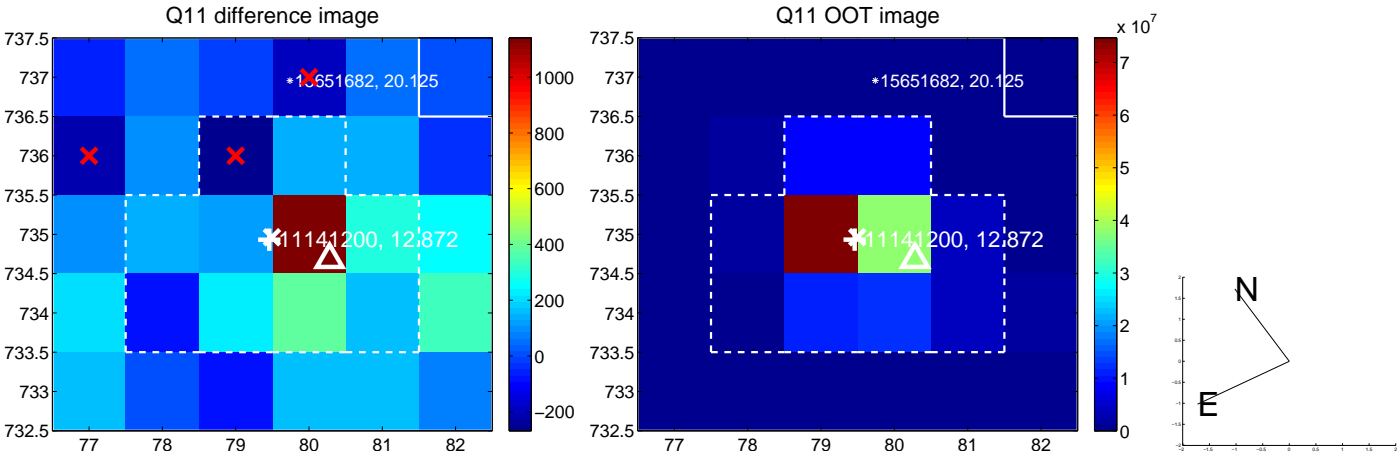
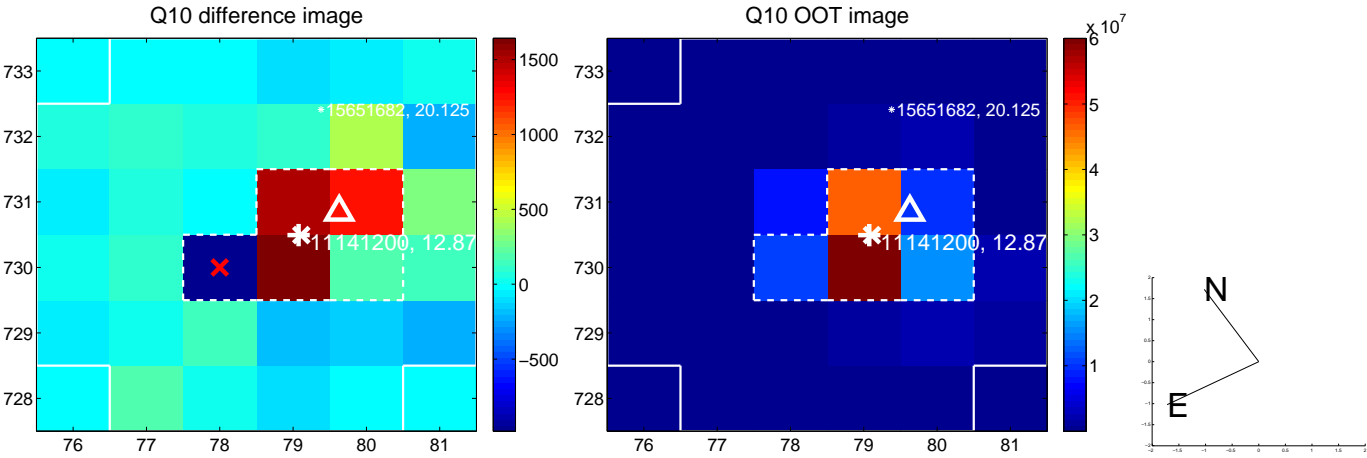
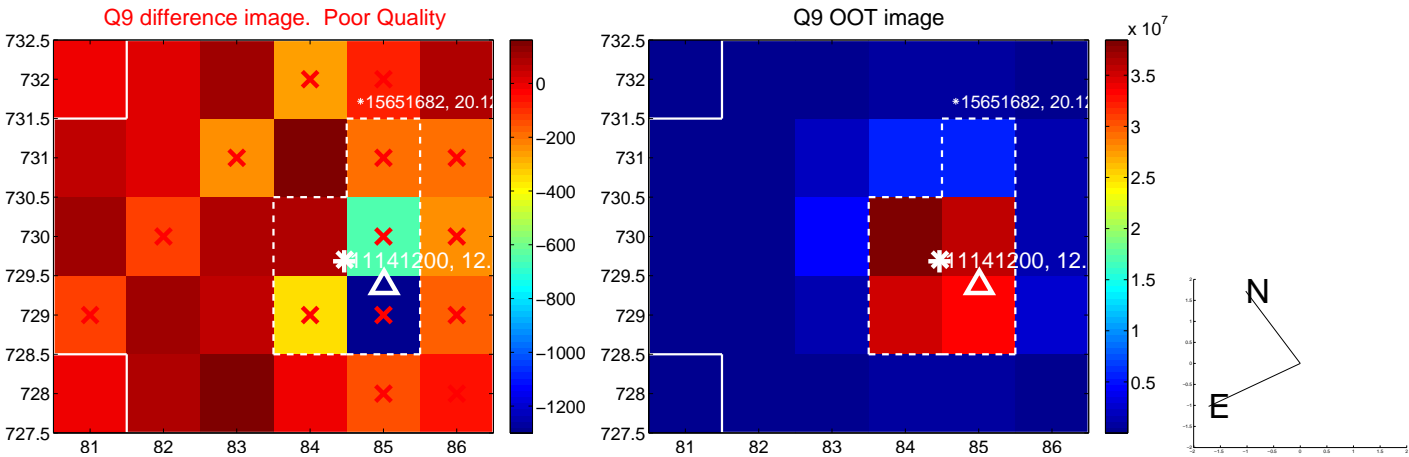
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



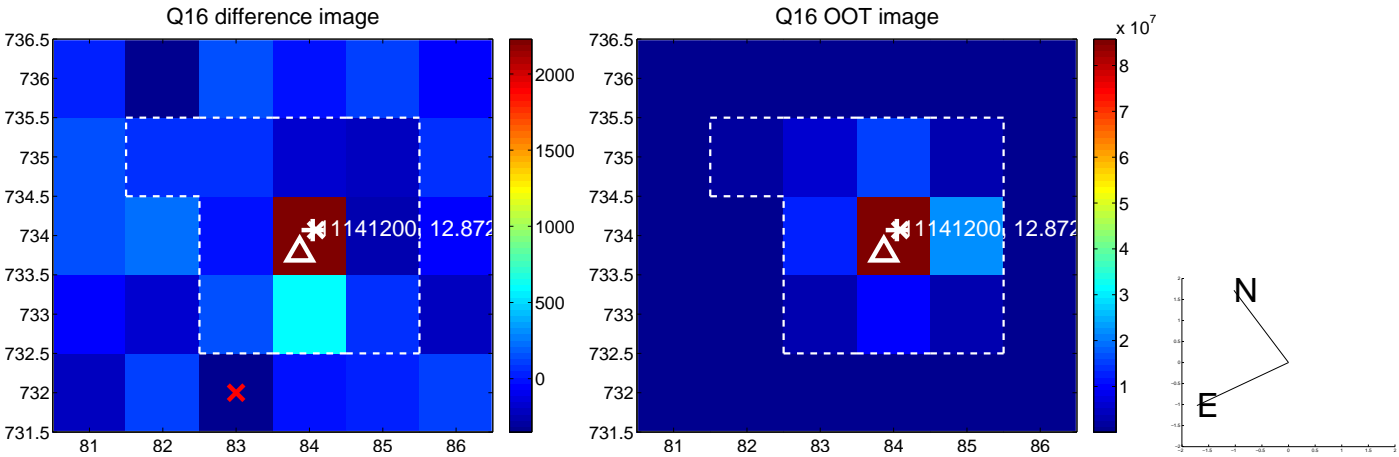
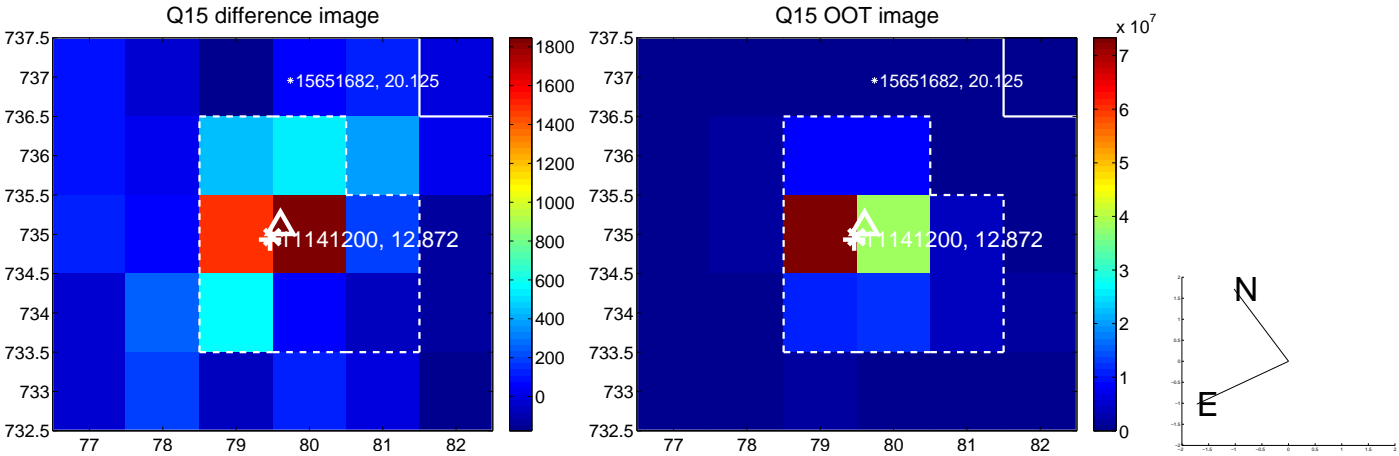
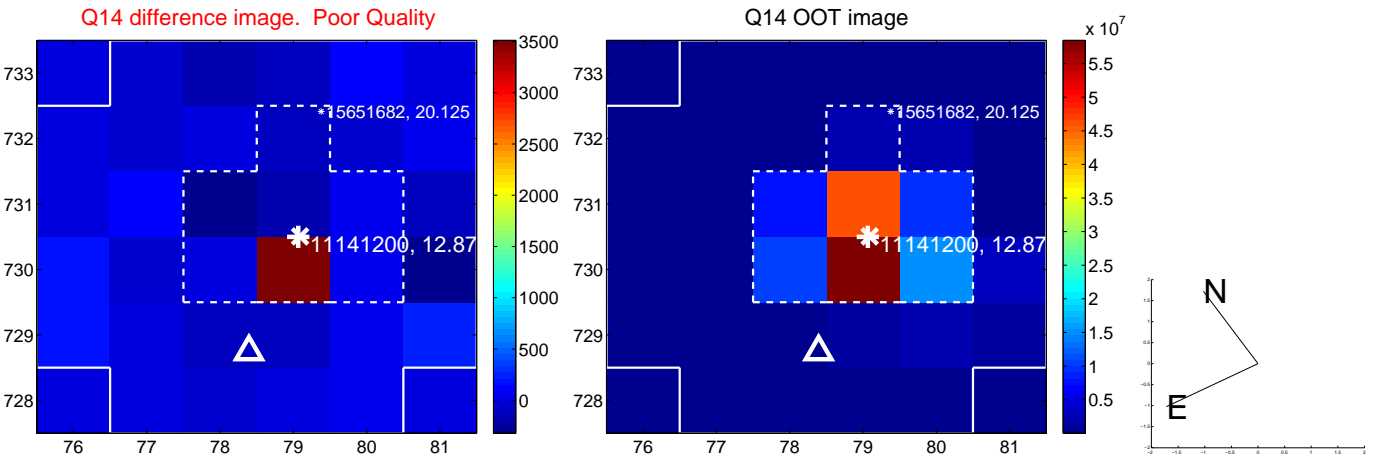
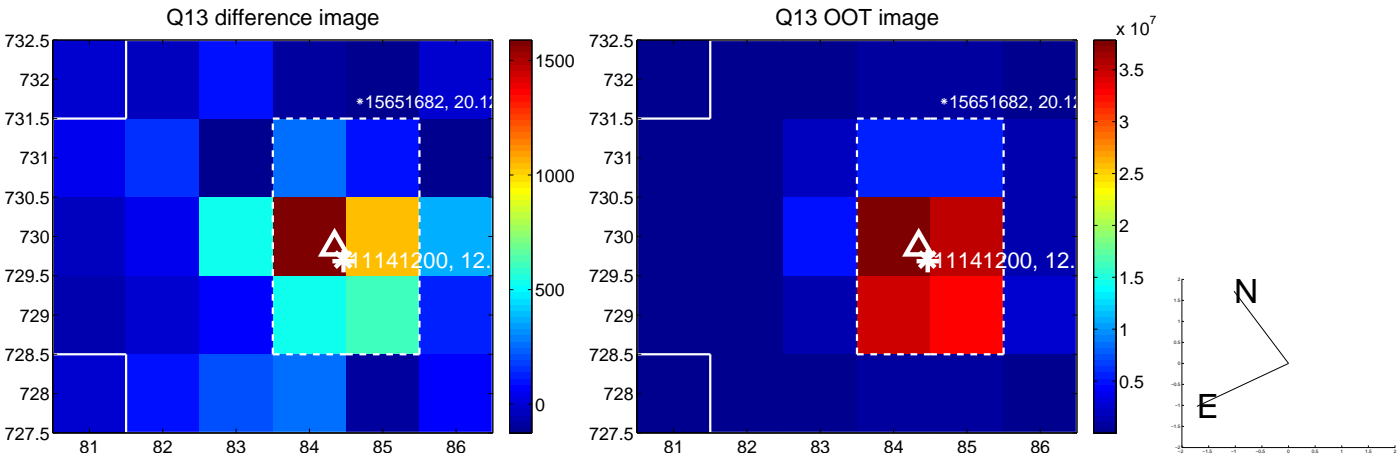
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



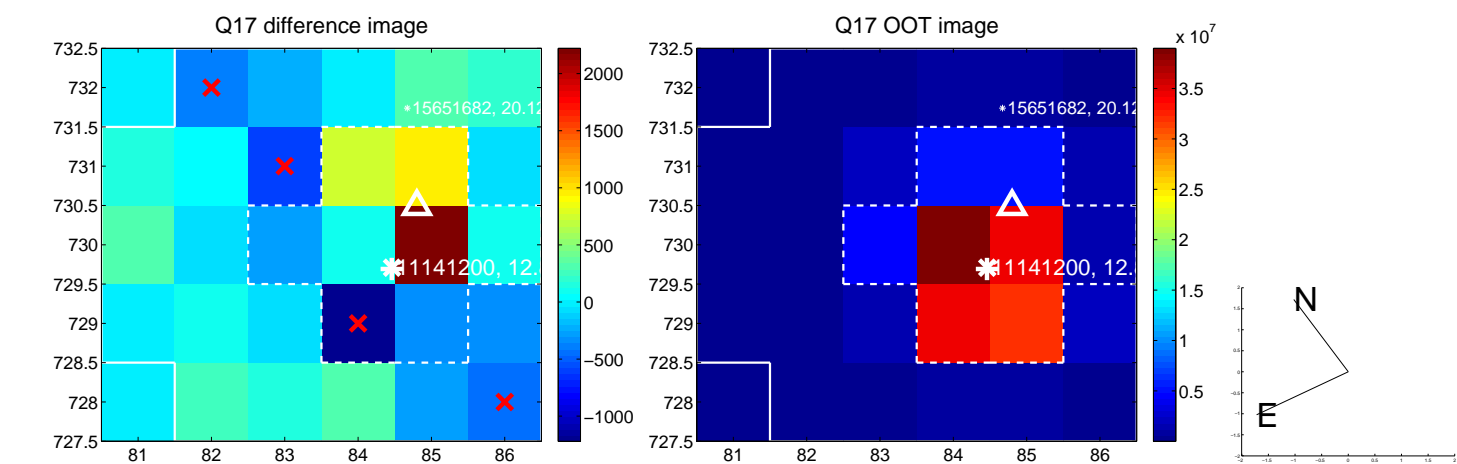
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



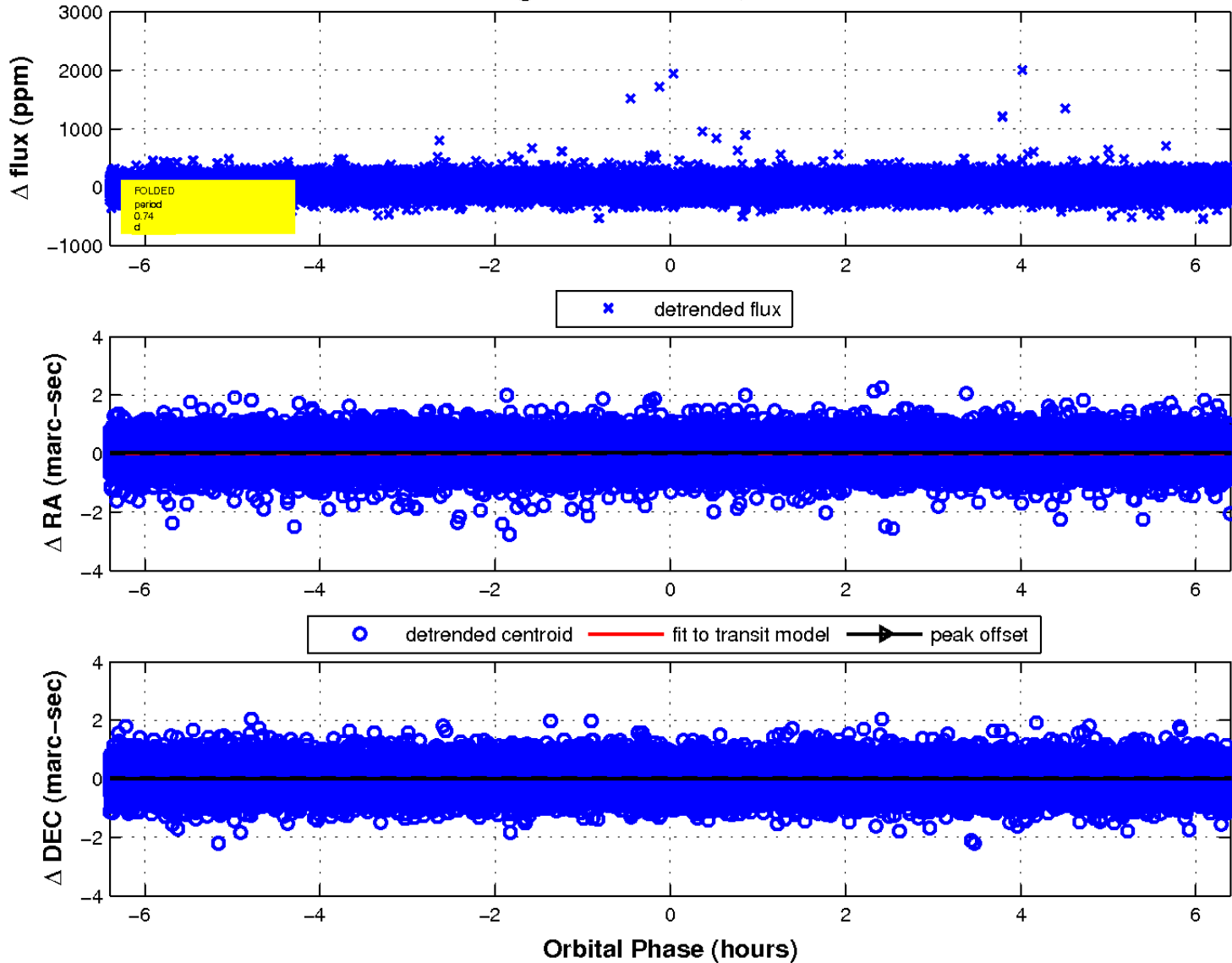
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

