

KIC 008264490

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})
008264490-01	OBS	No	2.843320	132.920909	132.2	7.500	10.0	-1.0	2.92	8037	3.38	13618.42
008264490-02	OBS	No	128.070482	160.565206	298.8	4.403	17.9	3.6	2.92	8037	5.69	84.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264490-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_NOFITS
008264490-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET

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

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

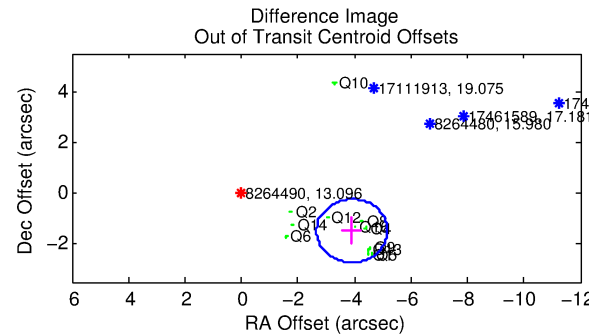
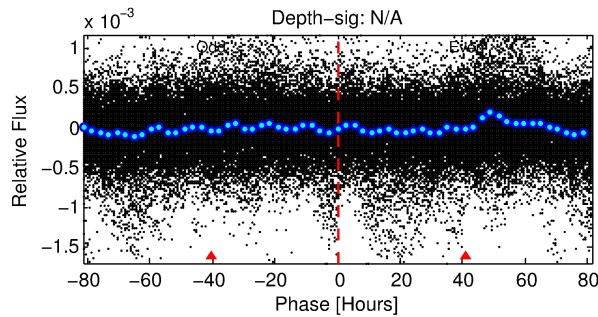
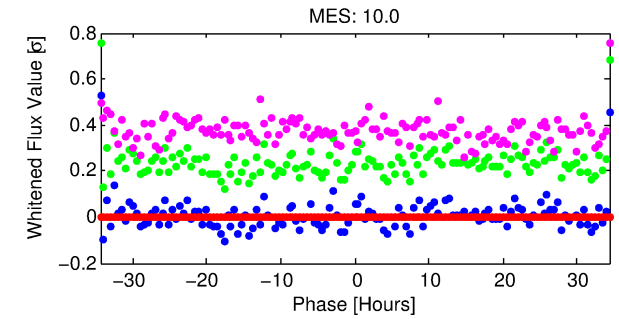
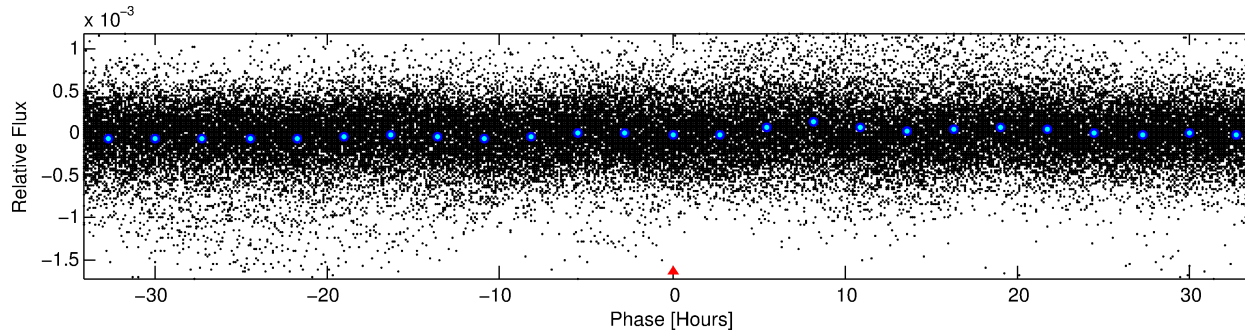
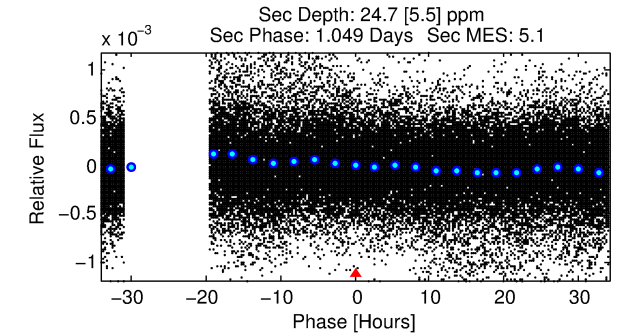
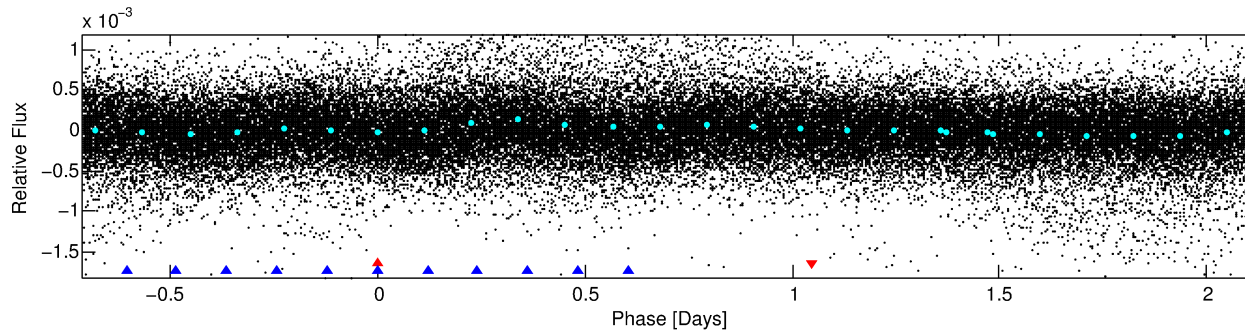
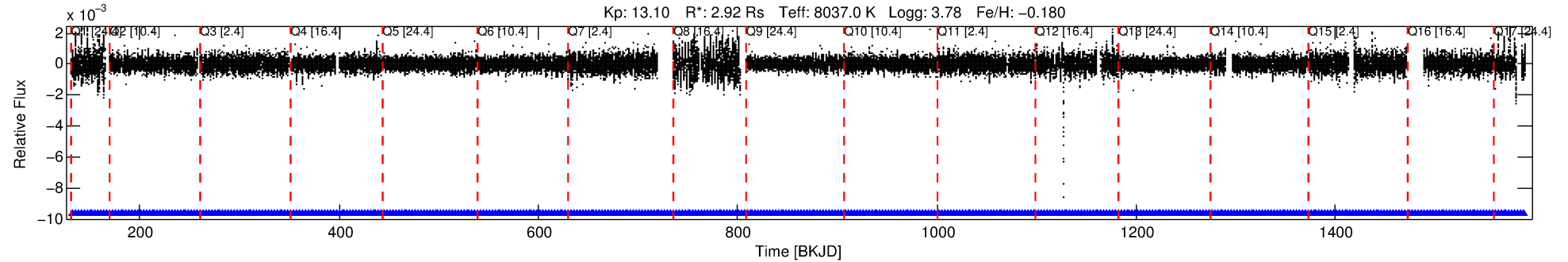
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264490-01

No Significant Match Found

DV One-Page Summary

KIC: 8264490 Candidate: 1 of 2 Period: 2.843 d



TPS TCE Results:

Period = 2.84332 d
Epoch = 132.9209 BKJD

DV fit results are unavailable

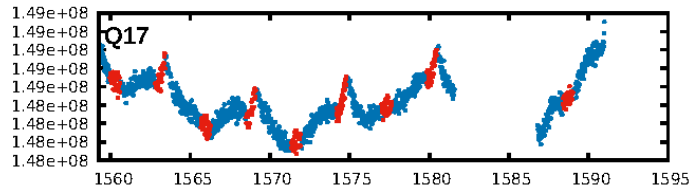
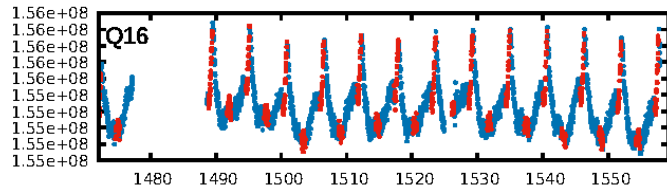
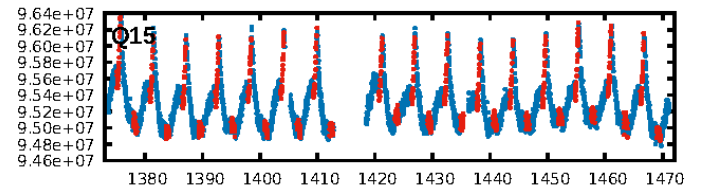
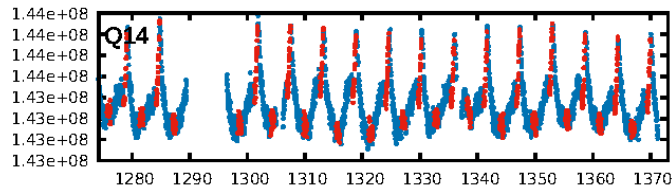
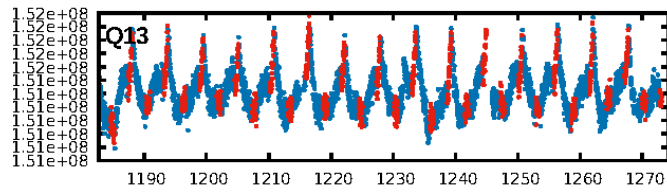
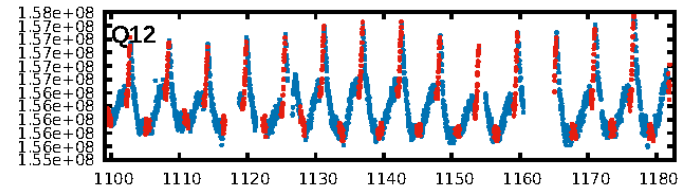
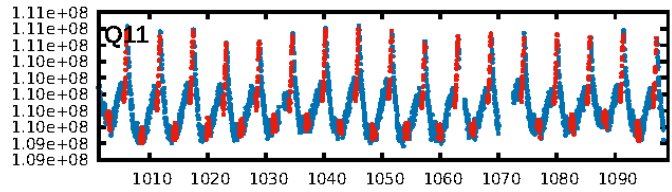
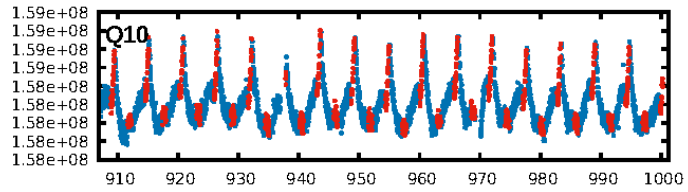
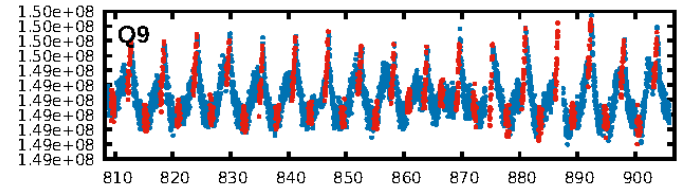
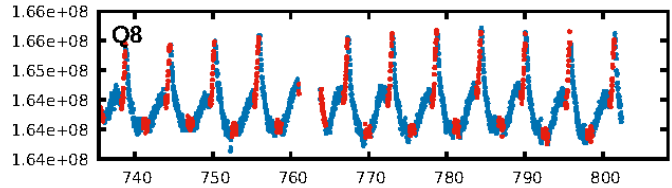
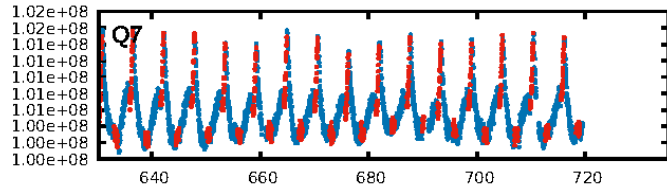
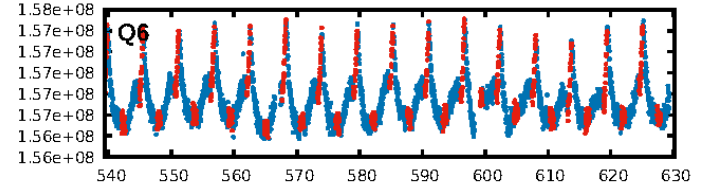
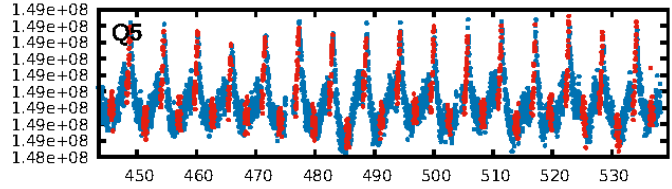
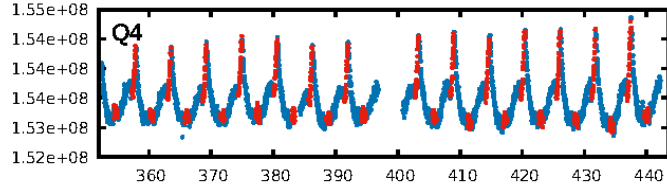
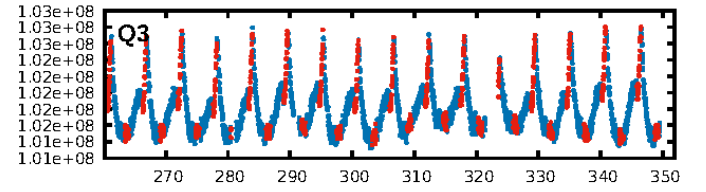
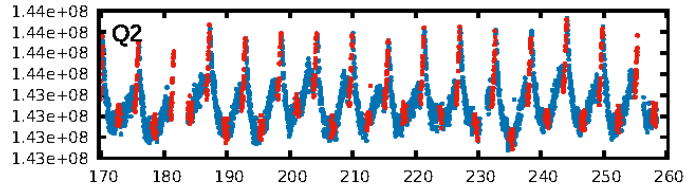
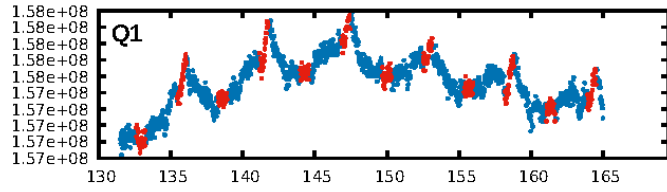
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [345.57σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.46e-20
RollingBand-fgt: 1.00 [463/463]
GhostDiagnostic-chr: -0.3293
Centroid-sig: N/A
Centroid-so: 4.780 arcsec [75.62σ]
OotOffset-rm: 4.182 arcsec [10.03σ]
KicOffset-rm: 8.494 arcsec [17.76σ]
OotOffset-st: 4/0/4/4 [12]
KicOffset-st: 4/1/4/4 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [17/17]

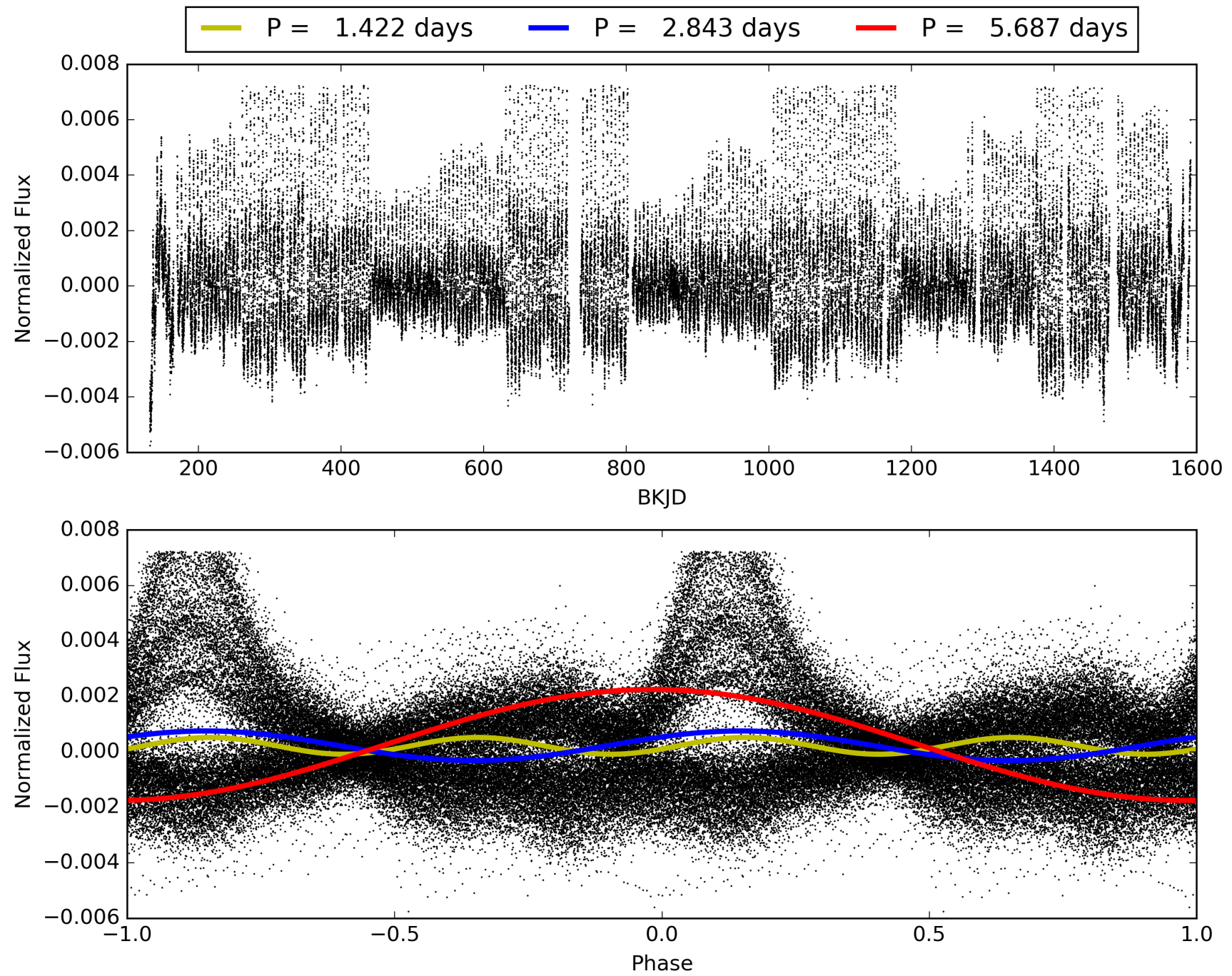
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:40:14 Z

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

TCE 008264490-01, PDC Light Curves

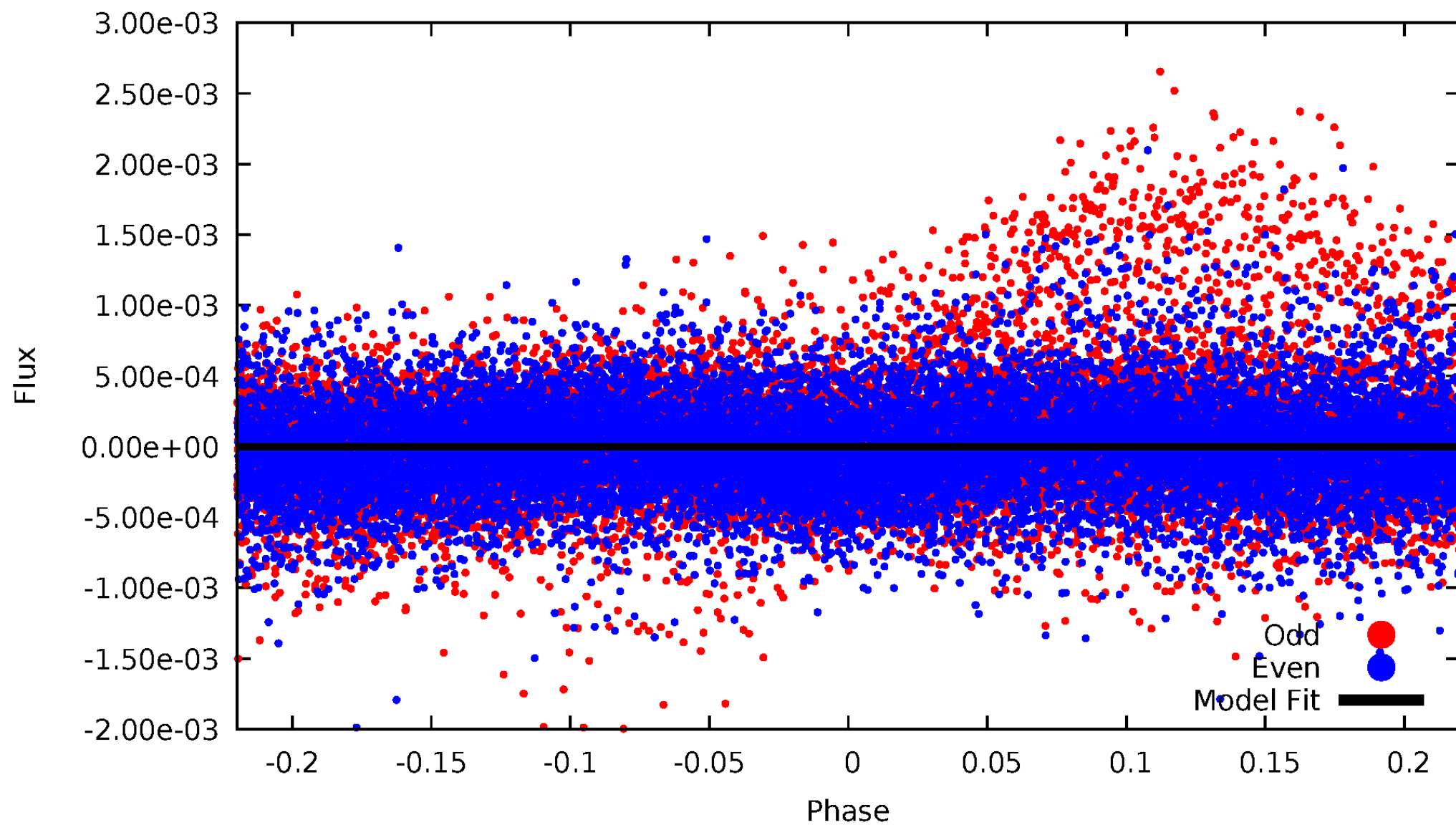


TCE 008264490-01



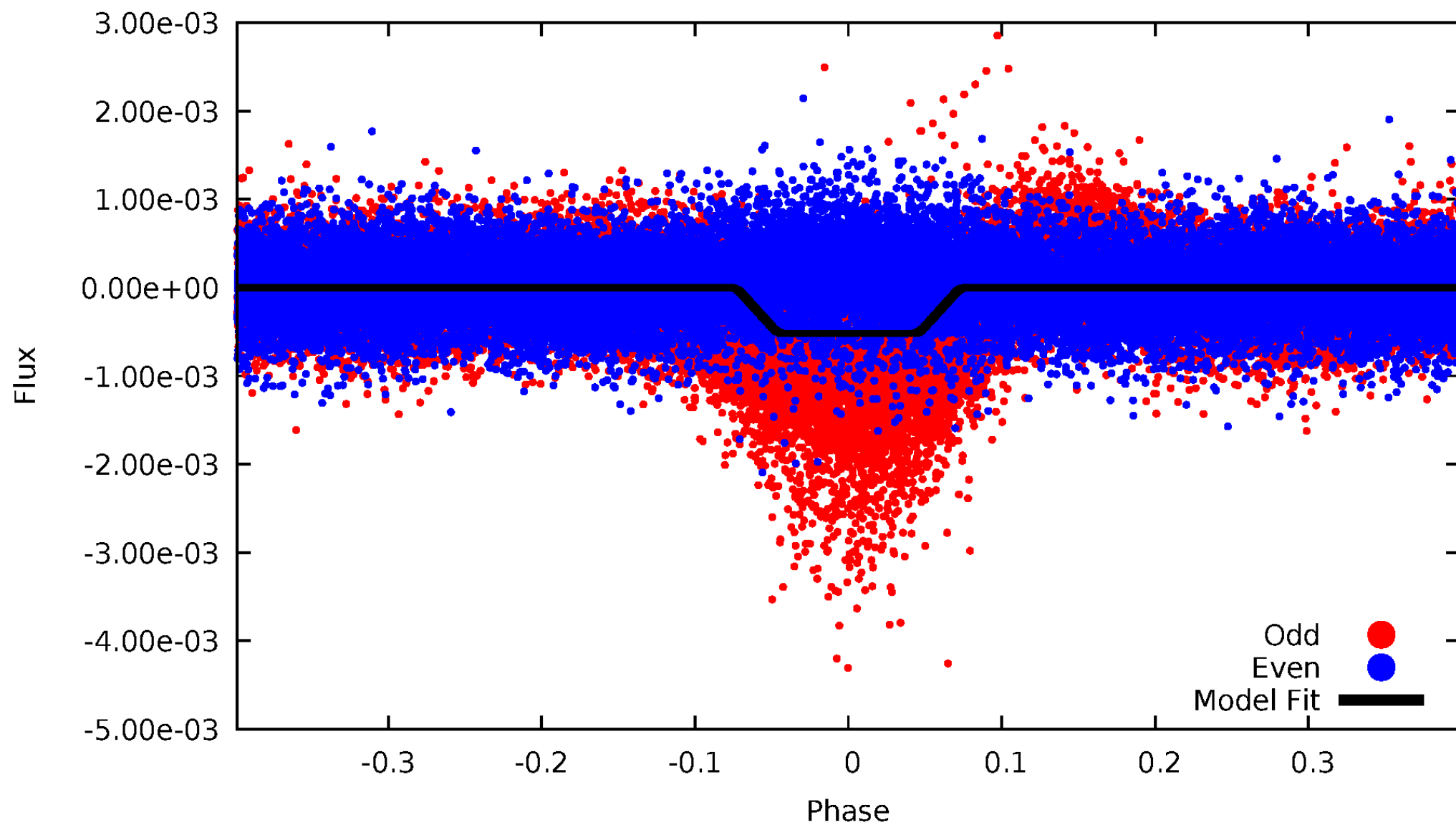
DV Odd/Even

TCE 008264490-01

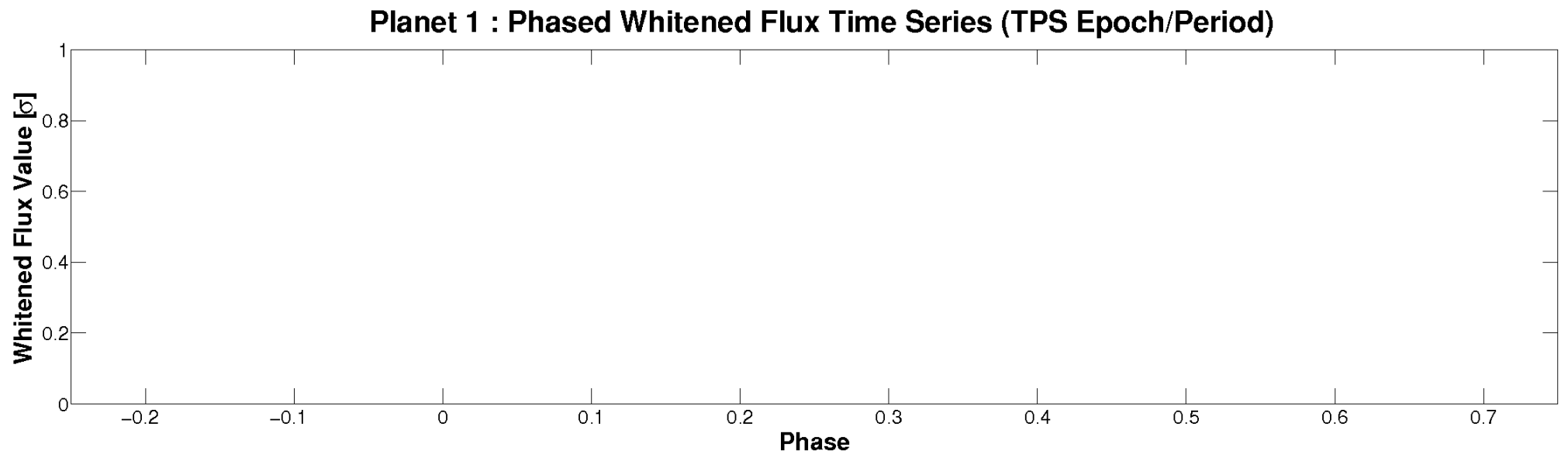
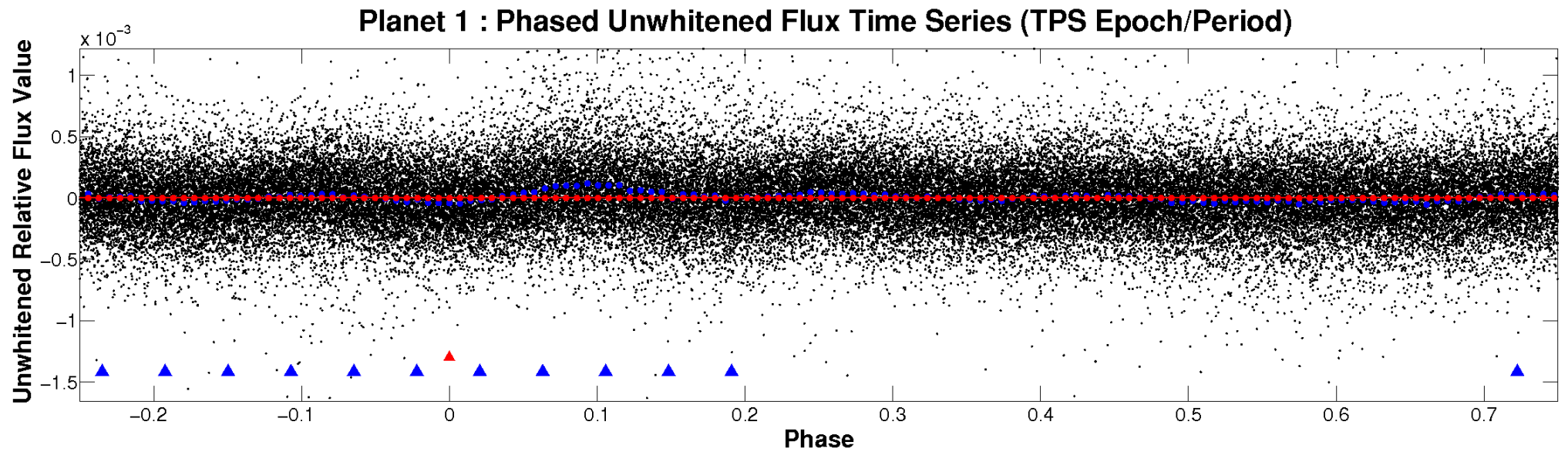


ALT Odd/Even

TCE 008264490-01

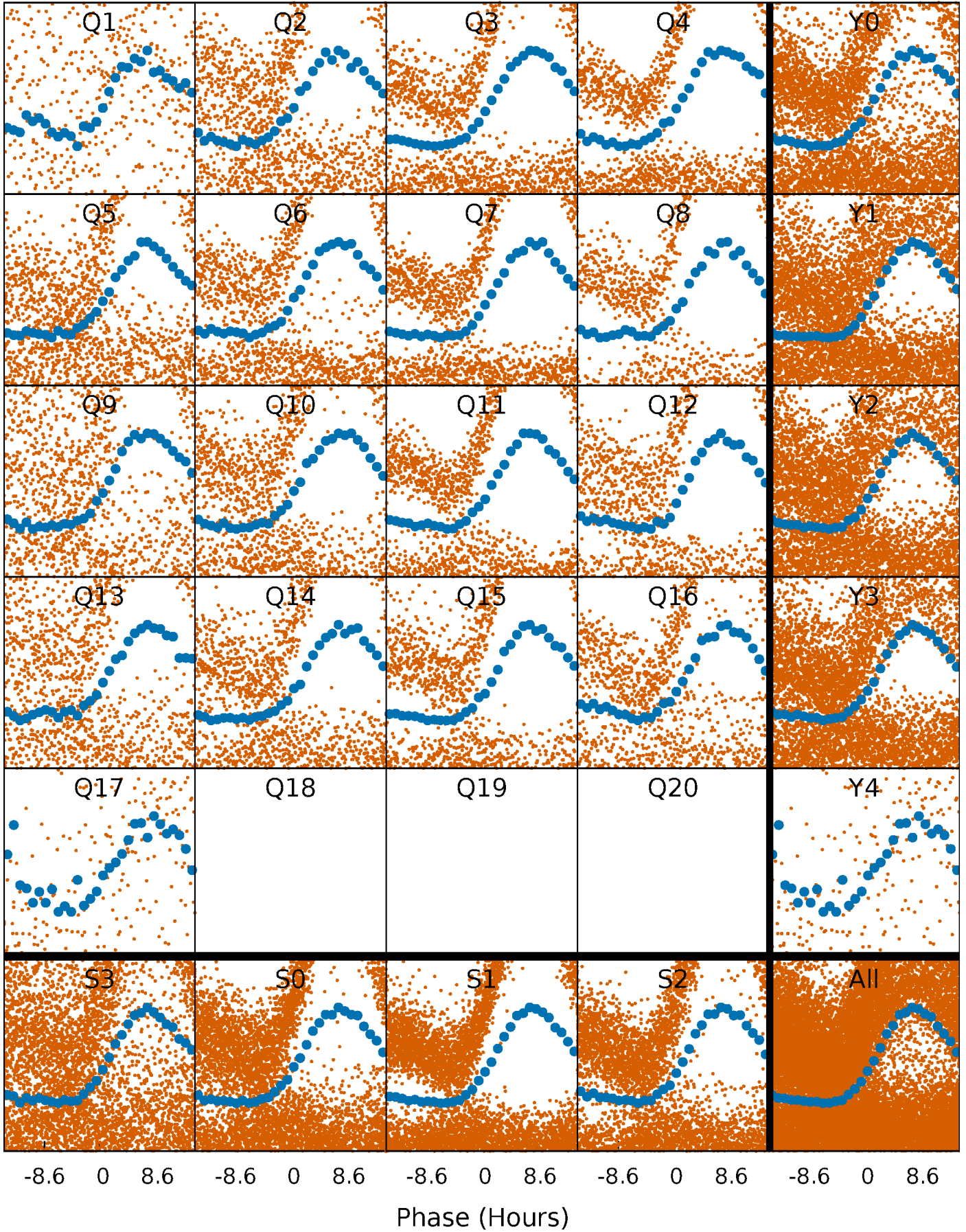


Non-Whitened Vs. Whitened Light Curve



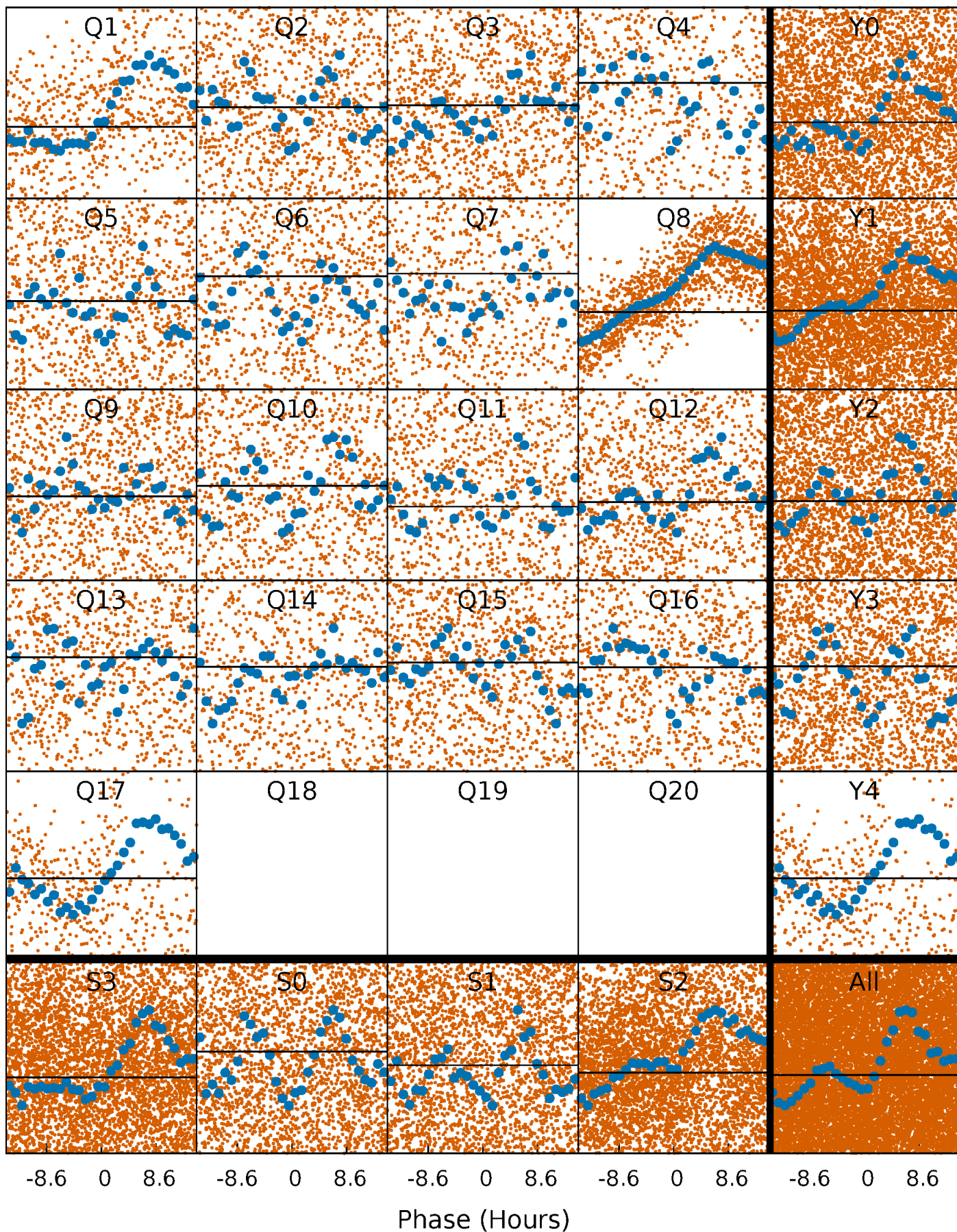
PDC Quarter-Phased Transit Curves

TCE 008264490-01 P= 2.843320 Days $T_0=132.920909$ (BKJD)



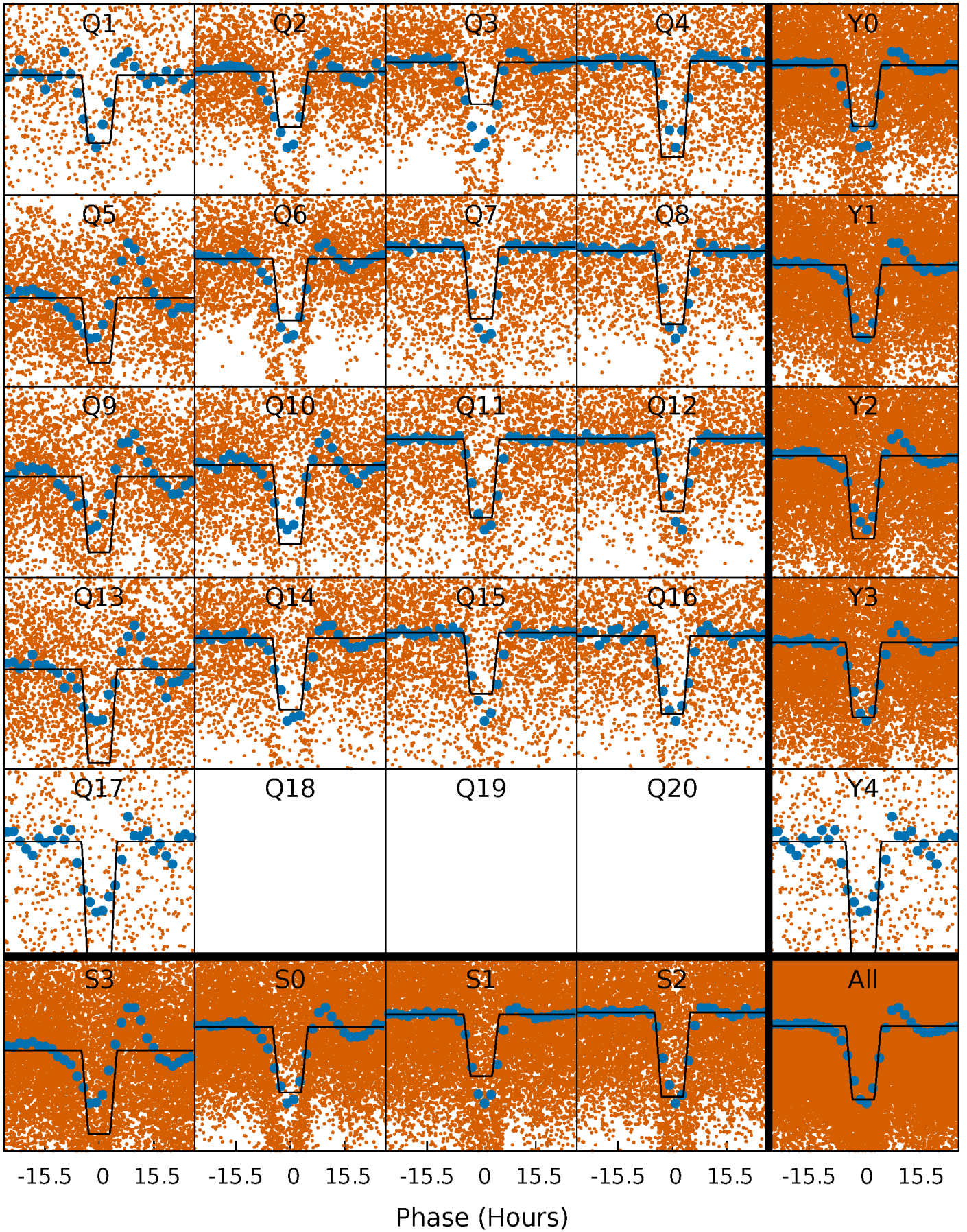
DV Quarter-Phased Transit Curves

TCE 008264490-01 P= 2.843320 Days $T_0=132.920909$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

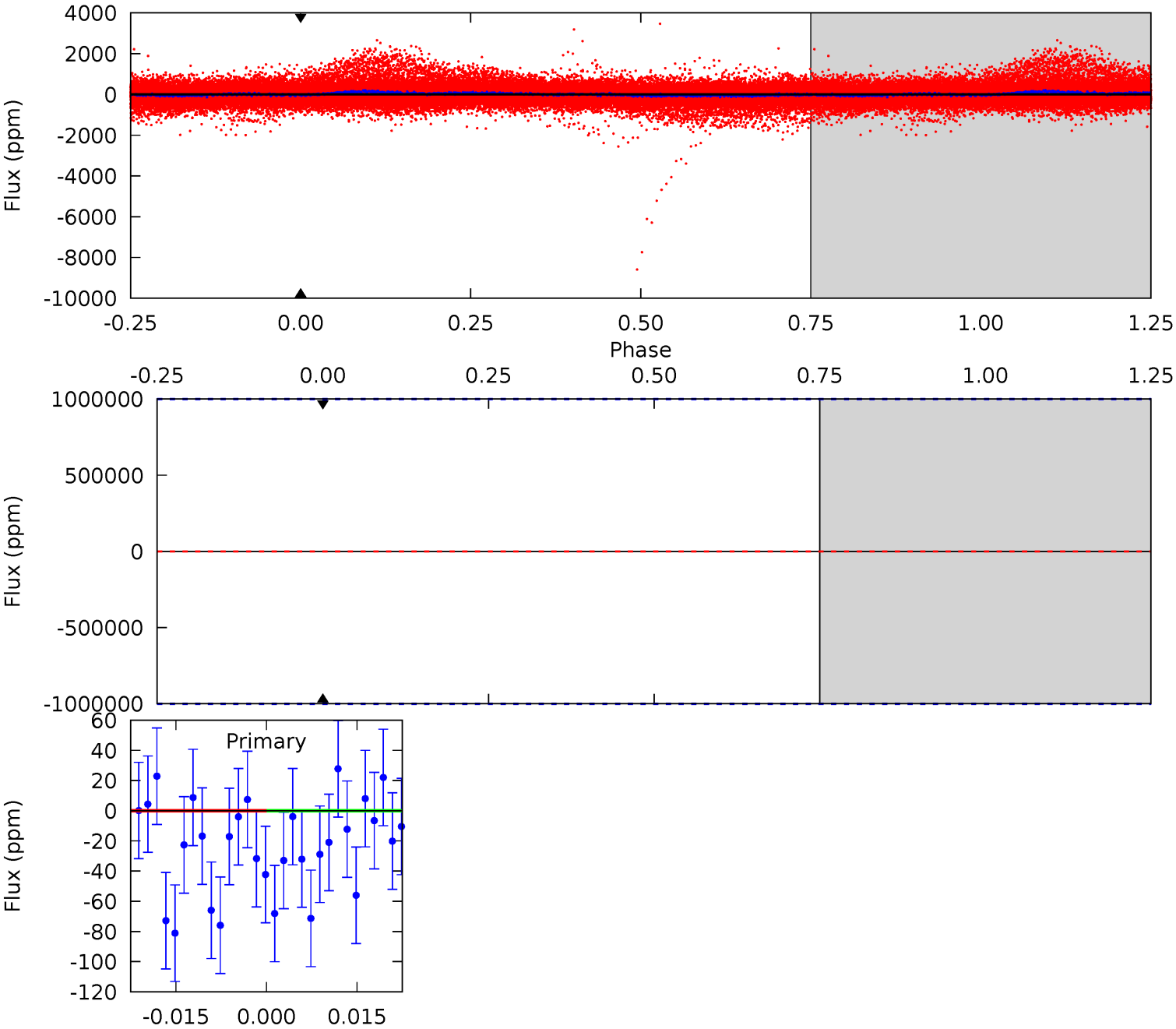
TCE 008264490-01 P= 2.843320 Days $T_0=132.859359$ (BKJD)



DV Model-Shift Uniqueness Test

008264490-01, P = 2.843320 Days, E = 130.077589 Days

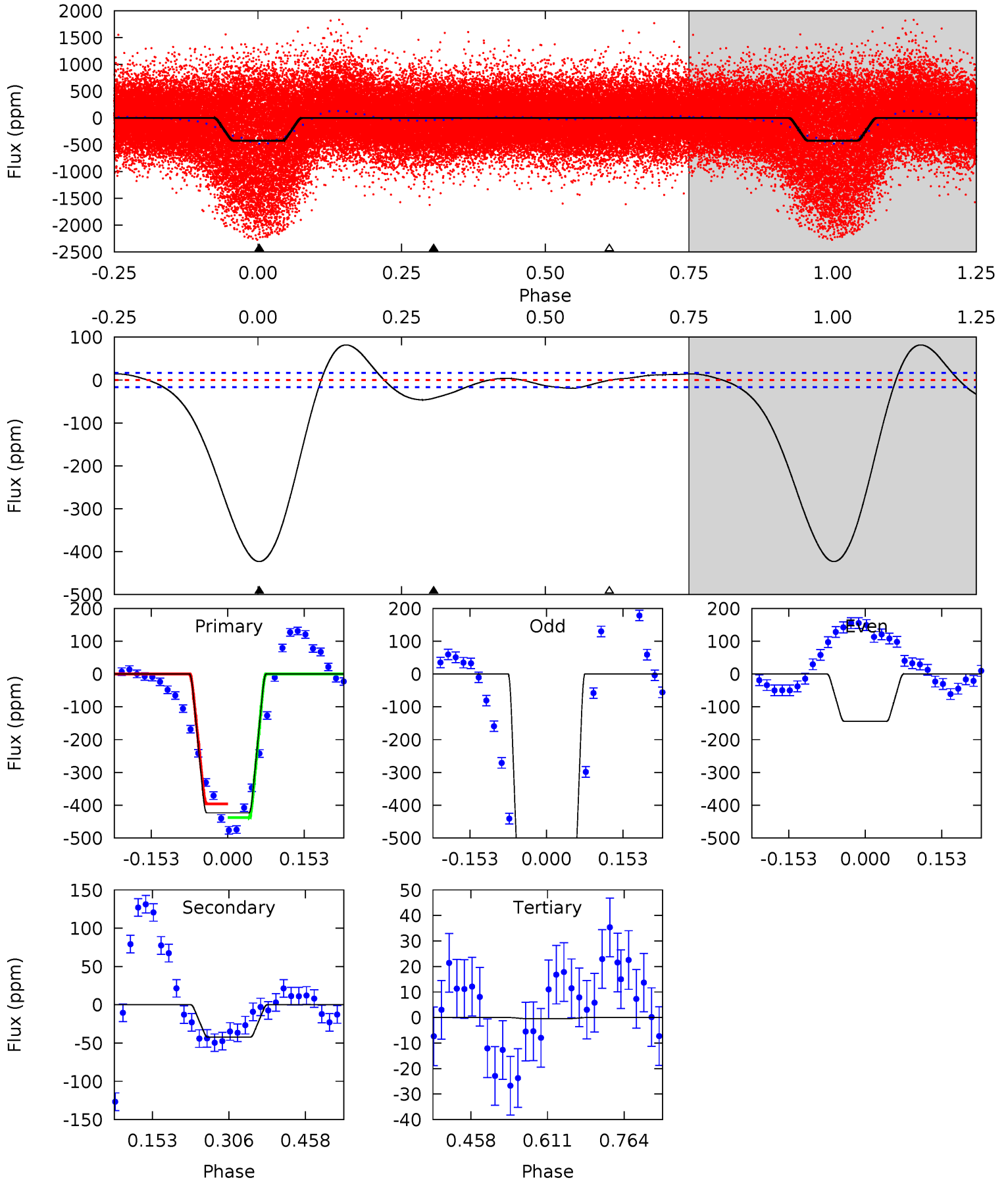
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008264490-01, P = 2.843320 Days, E = 130.016039 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
112.5	11.3	0.12	0	4.48	1.43	3.14	112.4	112.5	11.1	11.3	127.7	1.16	0.16	5.42



Stellar Parameters For KIC 008264490

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8037^{+223}_{-335}	$3.778^{+0.384}_{-0.072}$	$-0.180^{+0.200}_{-0.300}$	$2.917^{+0.414}_{-1.324}$	$1.863^{+0.101}_{-0.379}$	$0.106^{+0.339}_{-0.025}$
	+3%/-4%	+10%/-2%	+111%/-167%	+14%/-45%	+5%/-20%	+321%/-24%
Source	KIC0	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 008264490-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$18.89^{+20.30}_{-13.06}$	3710^{+254}_{-412}	6099^{+58331}_{-53376}	$6.521^{+736.253}_{-491.637}$
Alt.	-42 ± 4	$21.36^{+21.59}_{-14.84}$	3734^{+244}_{-399}	-3115^{+7155}_{-350}	$0.117^{+1.117}_{-0.088}$

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 $A_{obs} \gg 1.0$

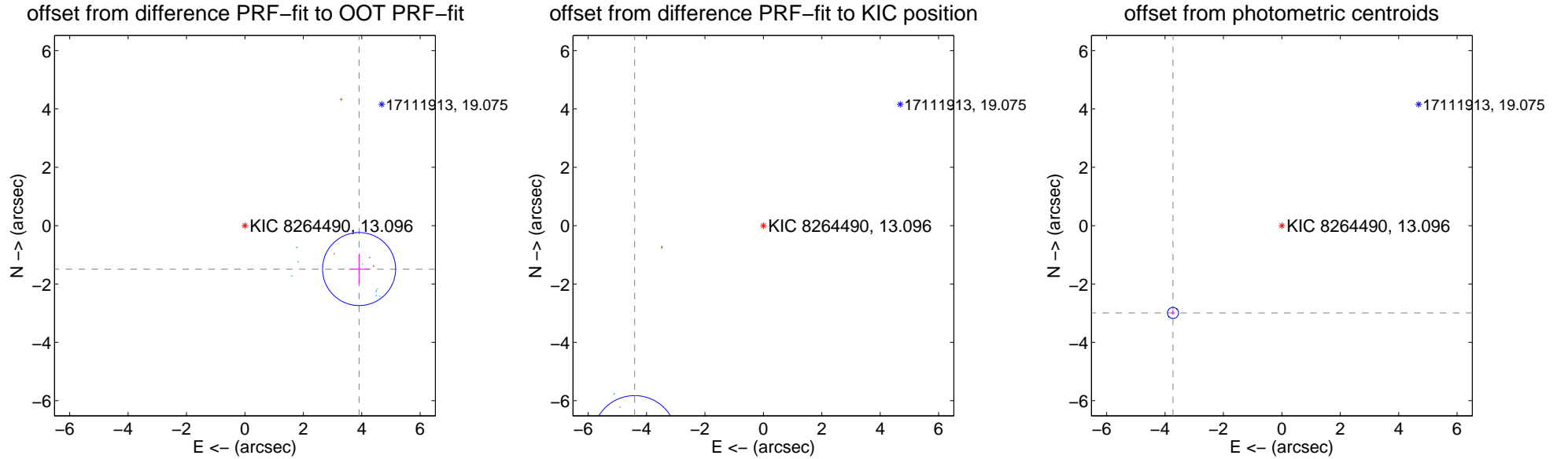
DV Centroid Data

Supplemental centroid analysis for 008264490-01. Kepler magnitude: 13.10. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

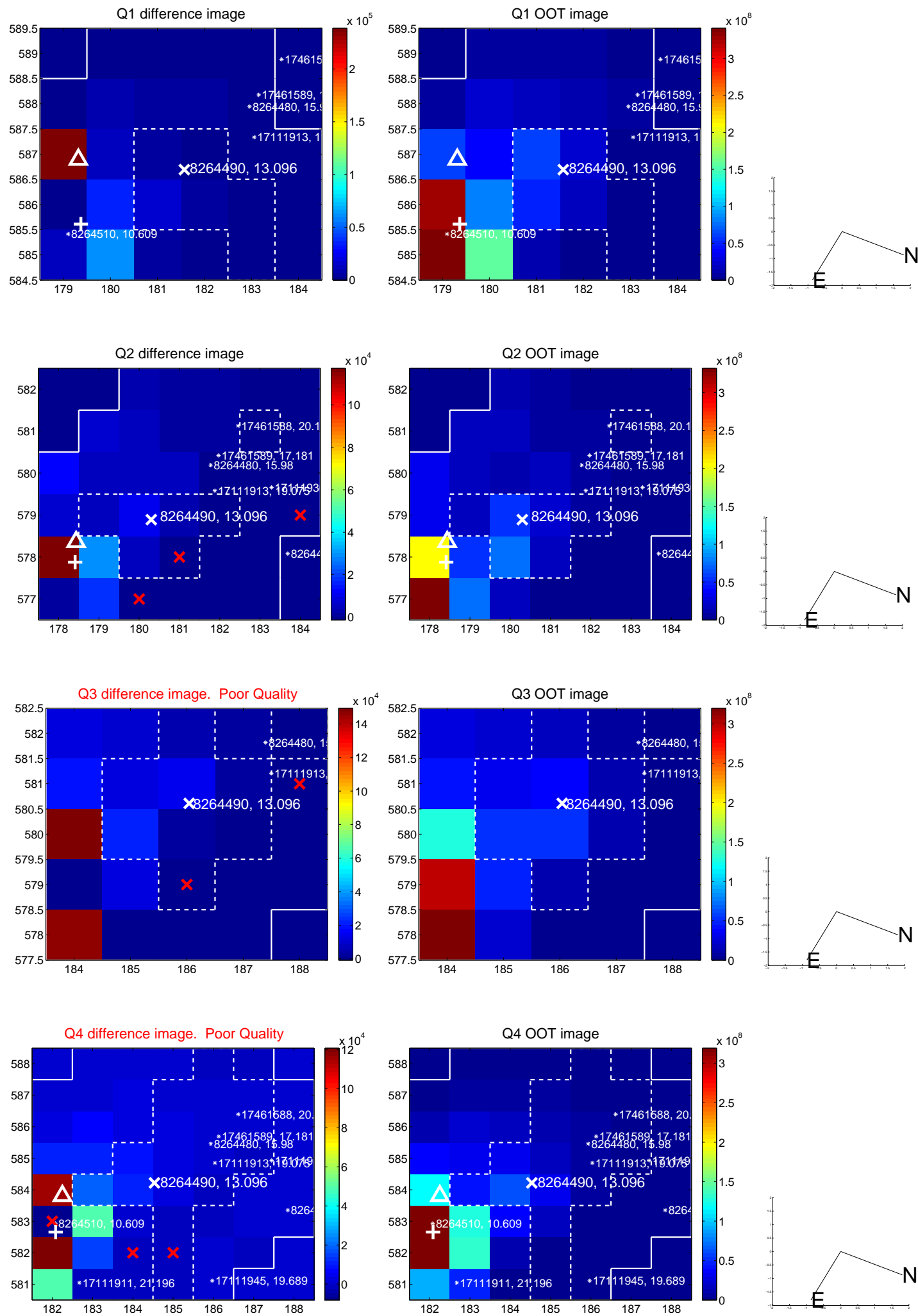
The OOT PRF centroid is offset from the target star catalog position by about 11.65 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.182 ± 0.417	10.03	-3.908 ± 0.346	-1.487 ± 0.516
PRF-fit source offset from KIC position	8.494 ± 0.478	17.76	4.408 ± 0.342	-7.260 ± 0.527
photometric centroid source offset	4.78 ± 0.06	75.62	3.73 ± 0.06	-2.99 ± 0.07

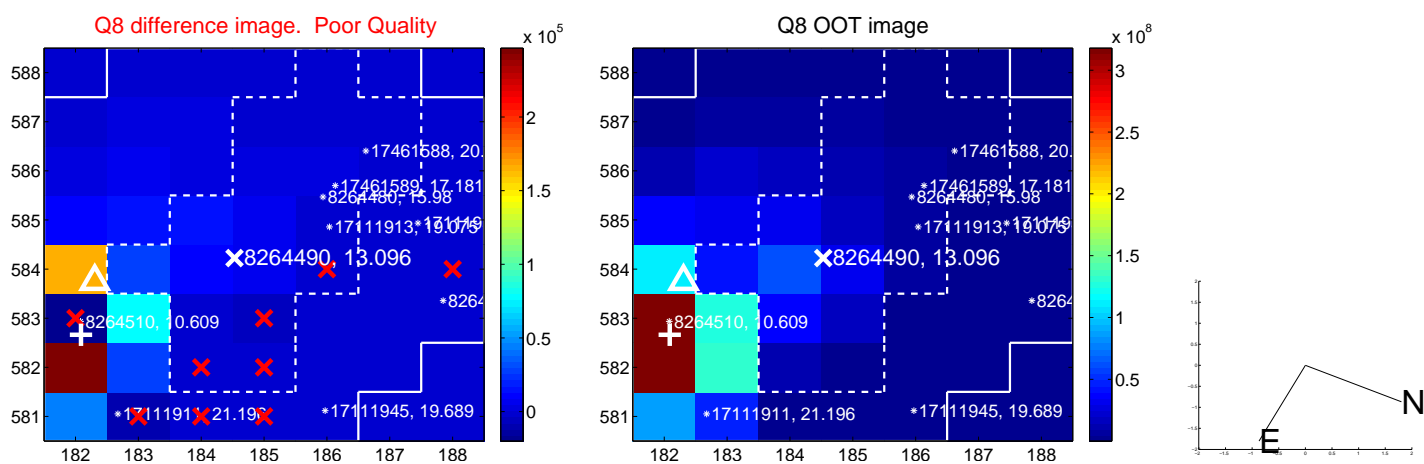
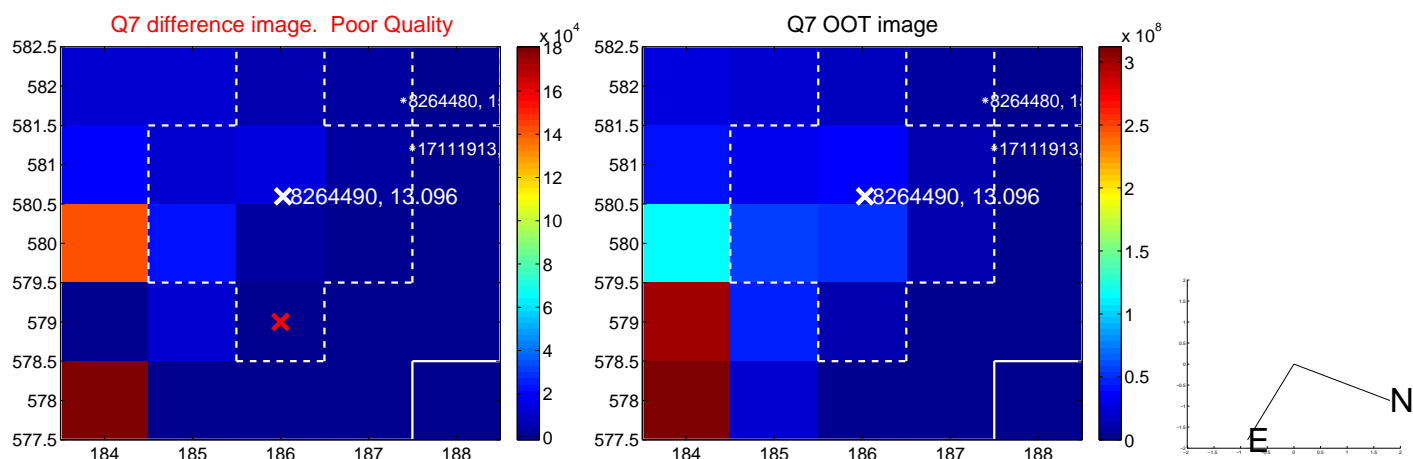
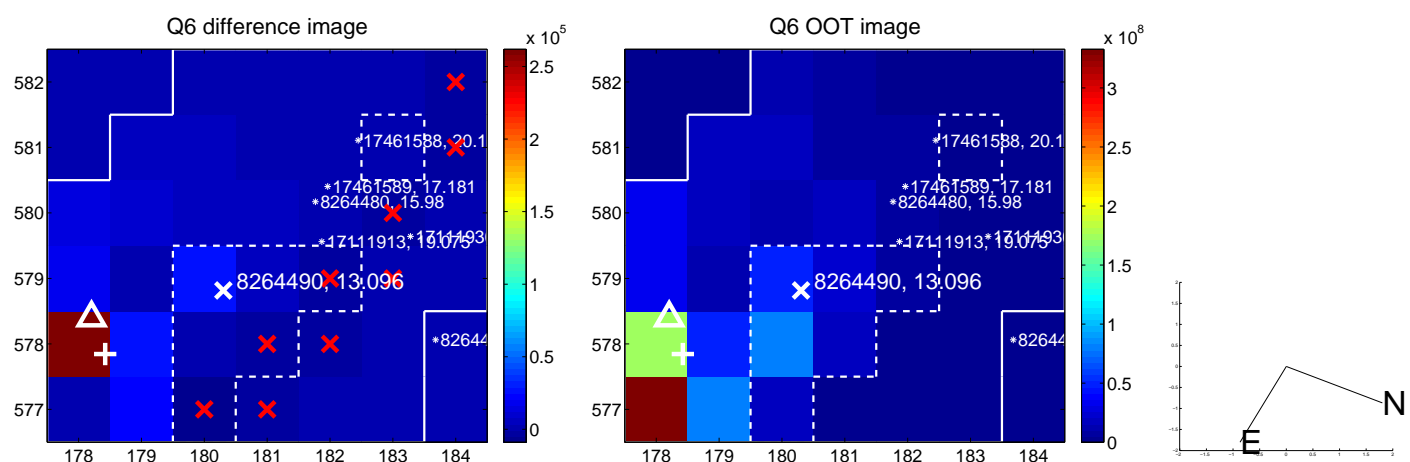
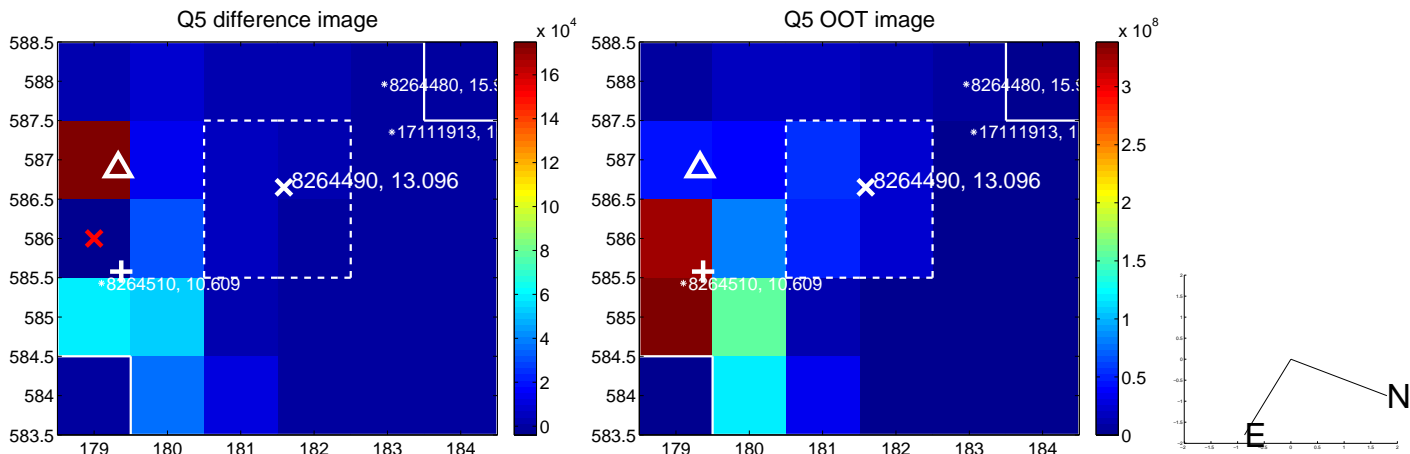


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

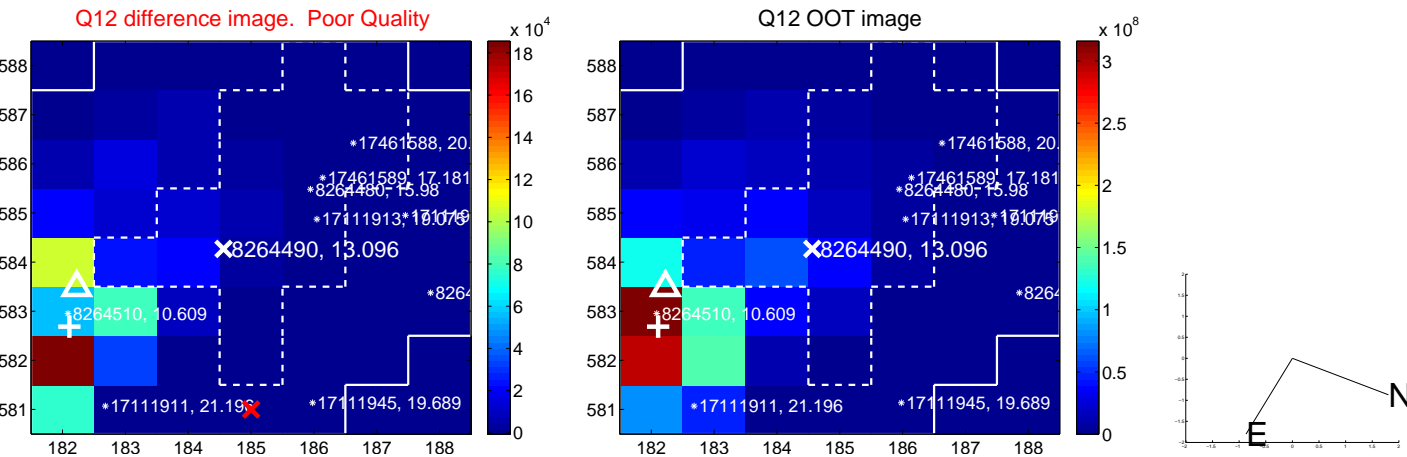
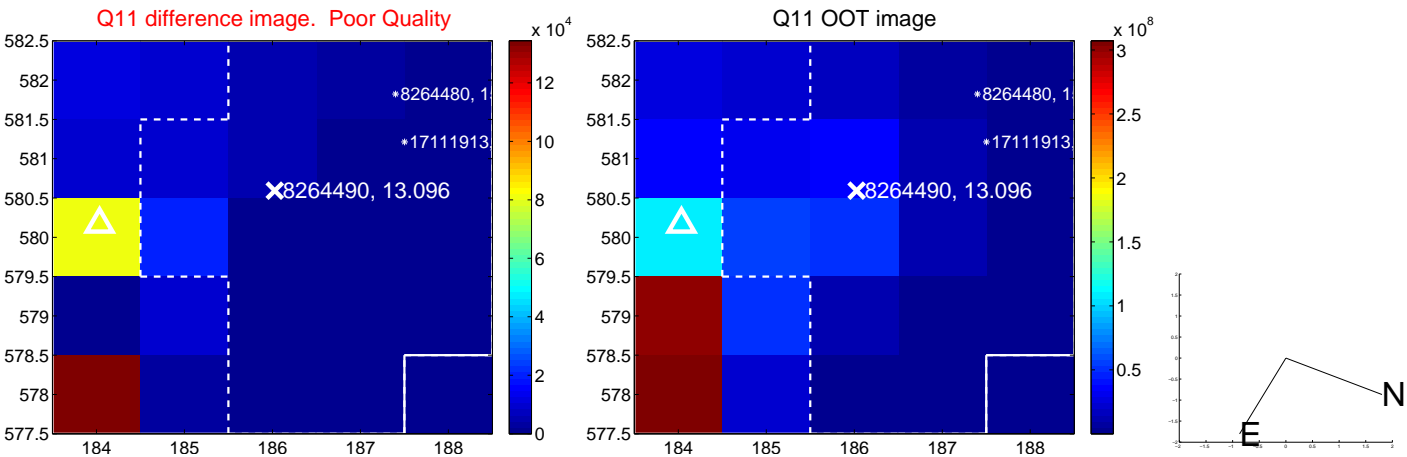
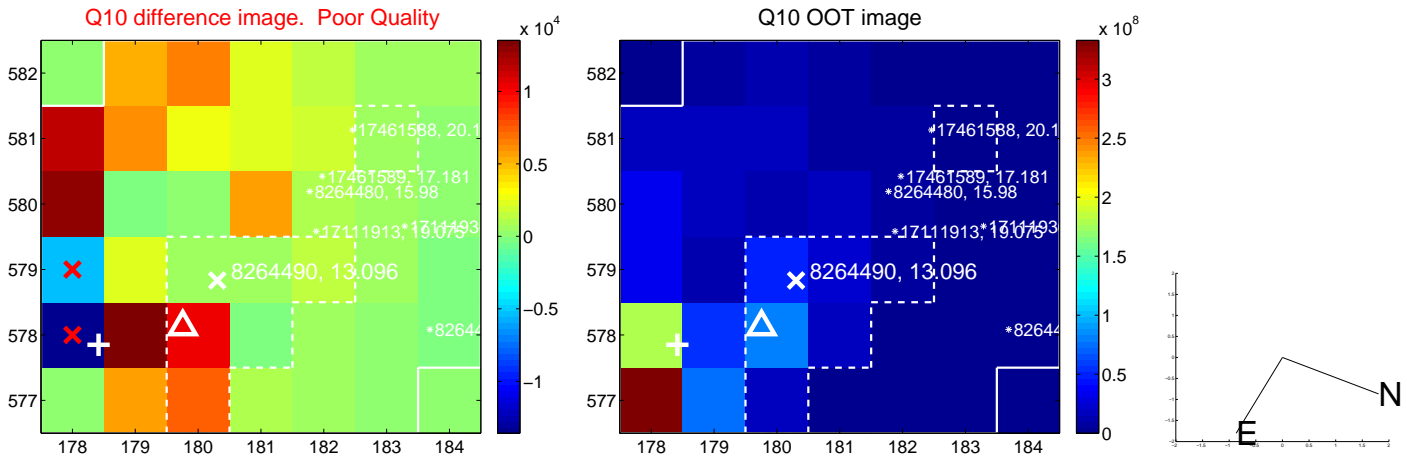
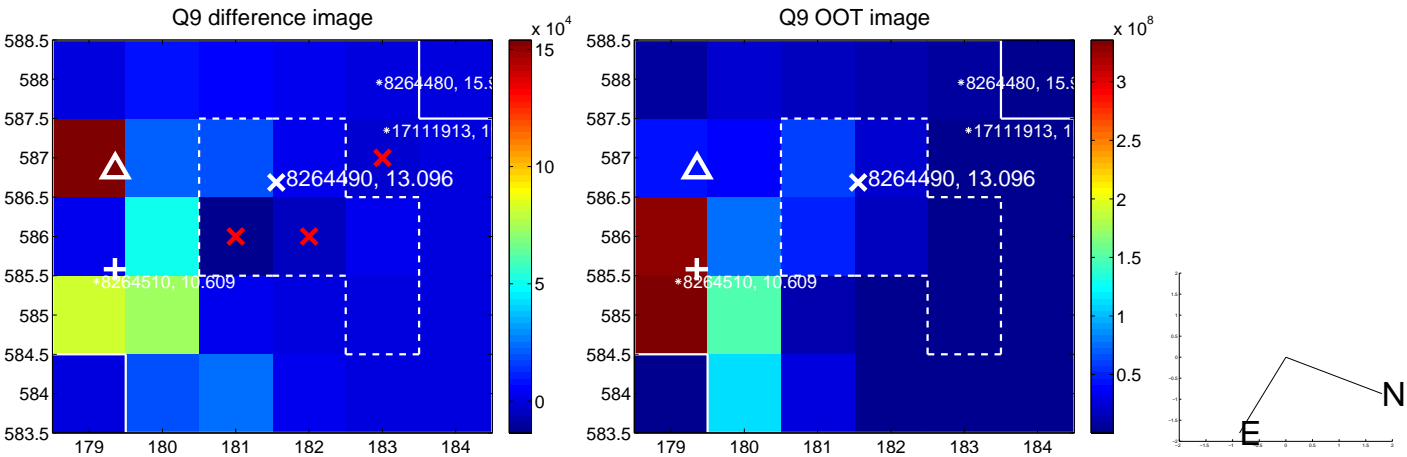
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



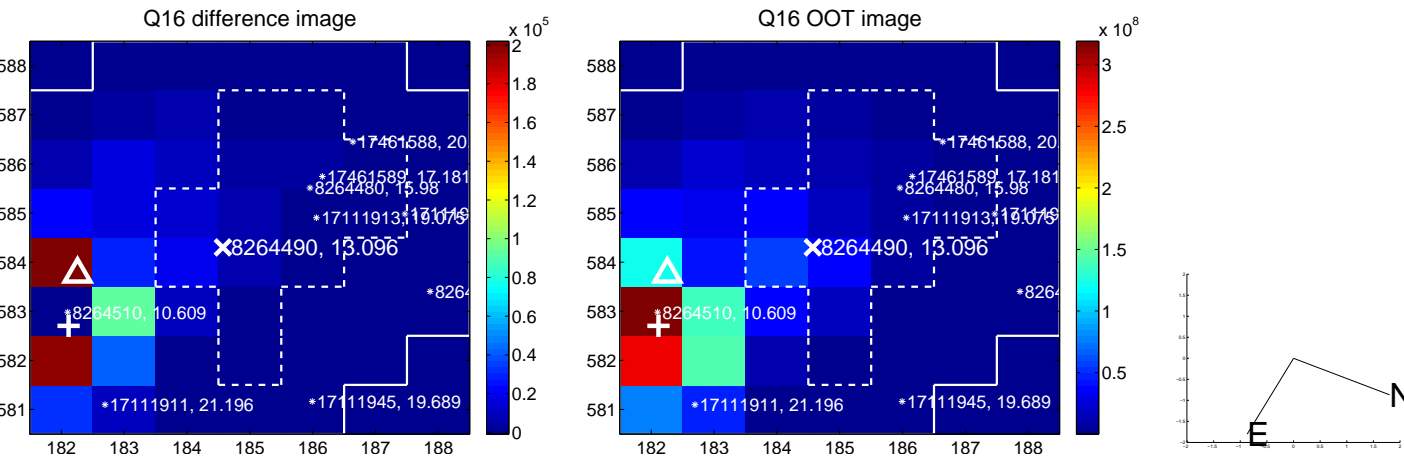
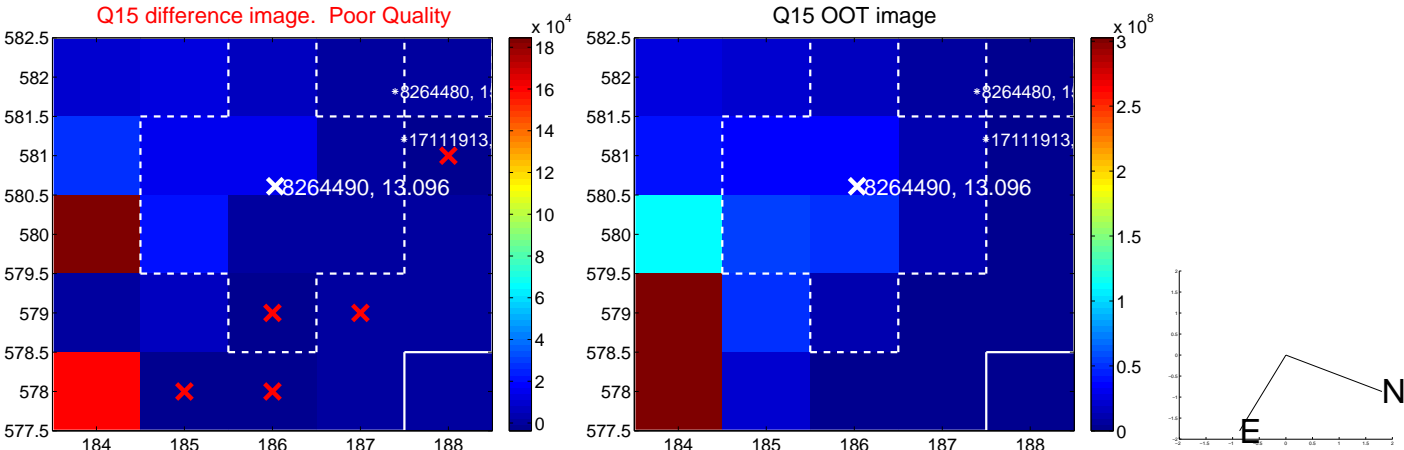
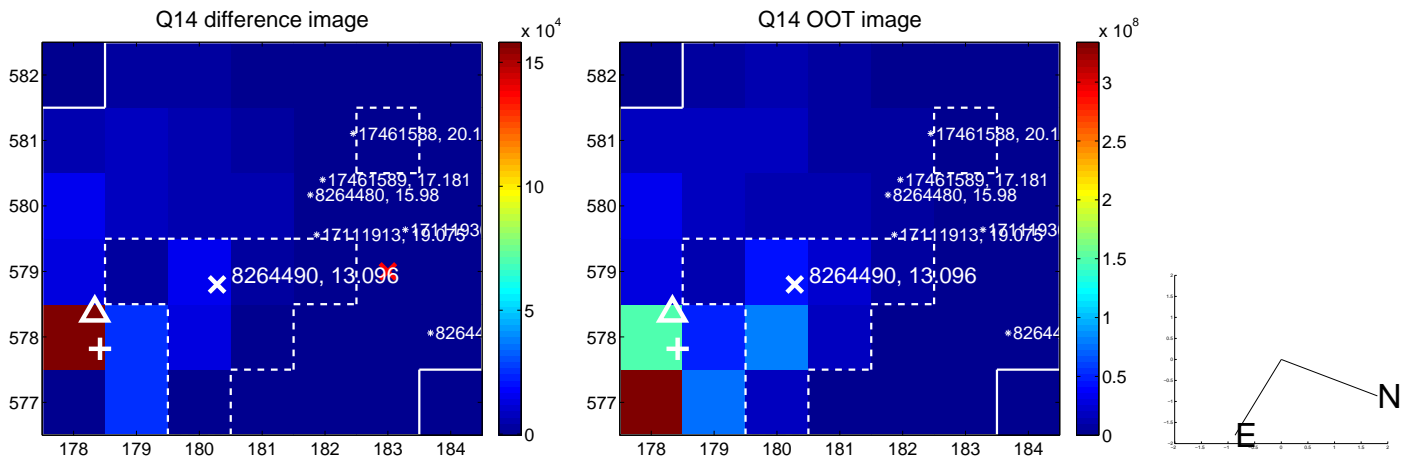
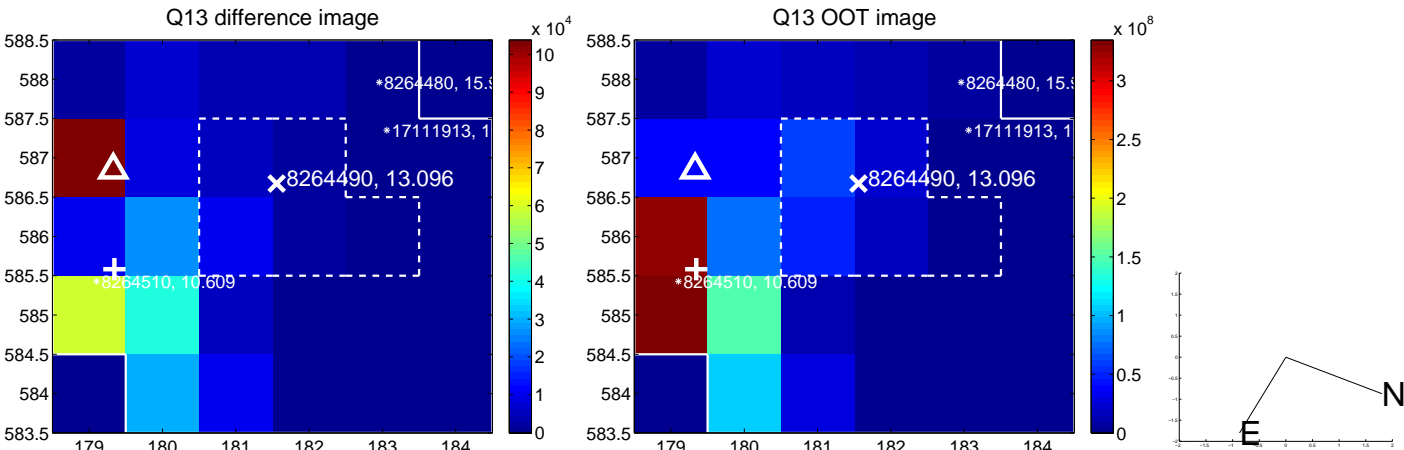
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



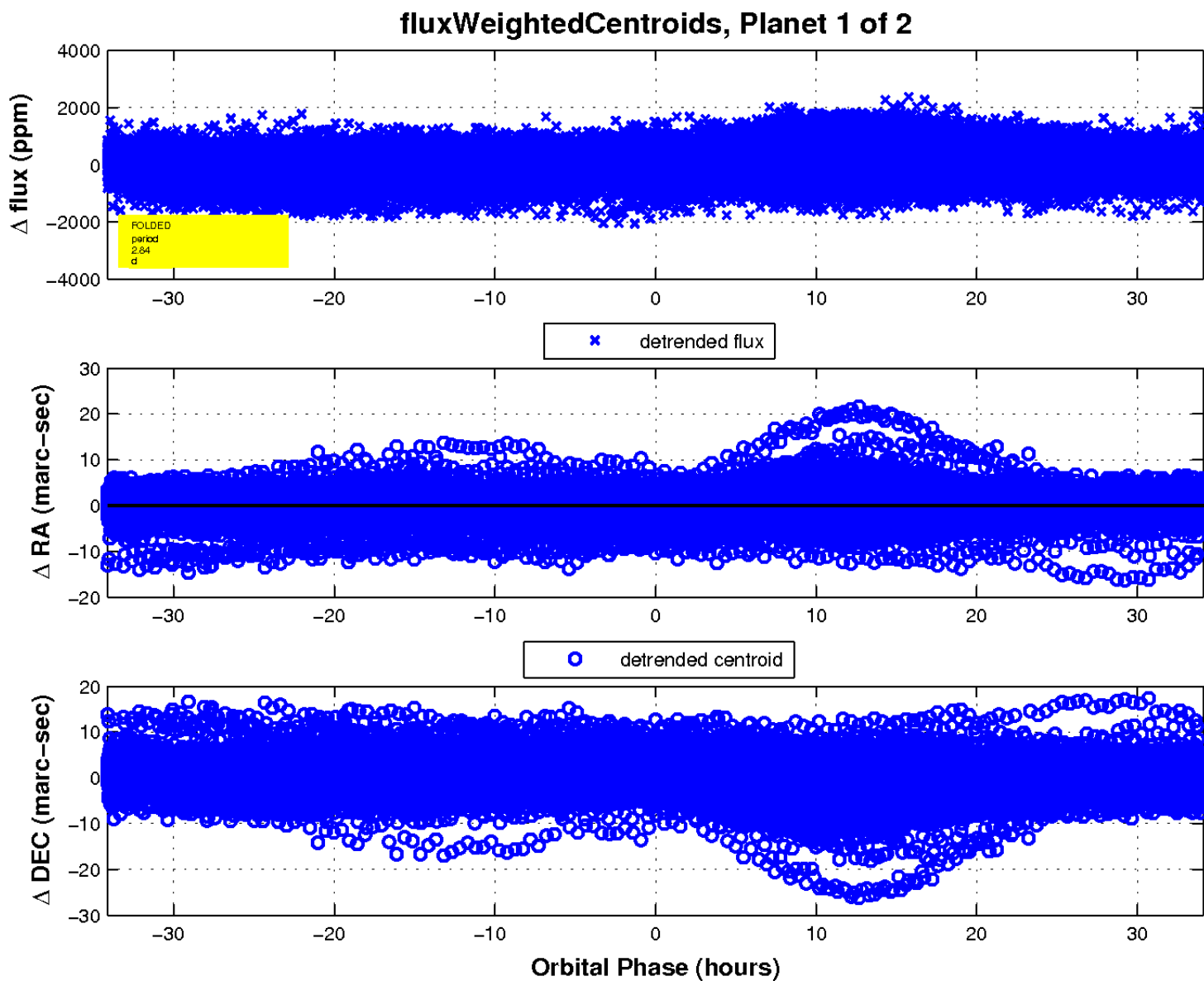
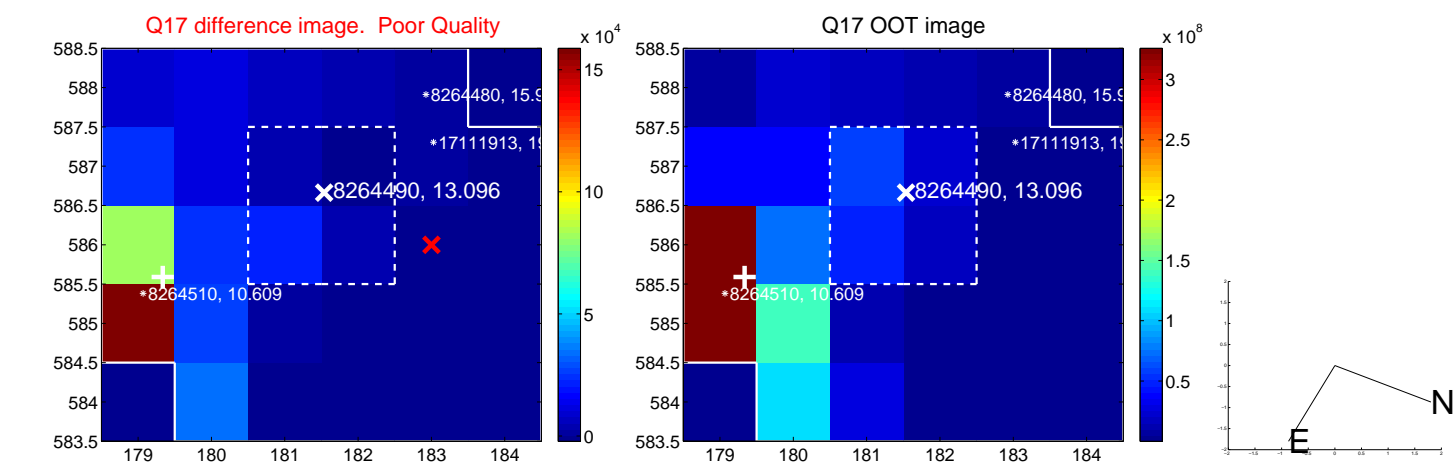
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



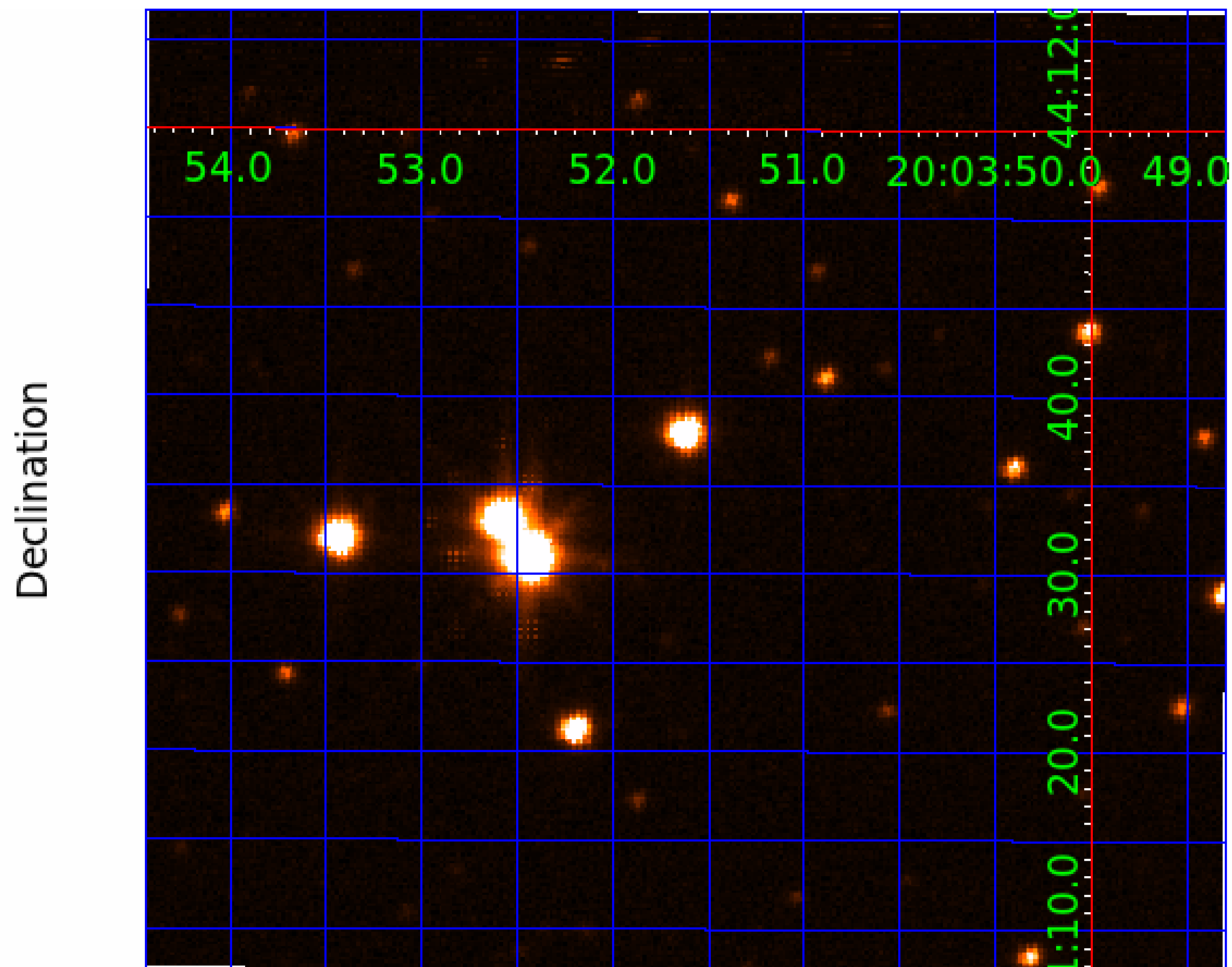
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UKIRT Image



KIC 008264490

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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008264490-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_NOFITS
008264490-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—INCONSISTENT_TRANS—CENT_RESOLVED_OFFSET

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

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

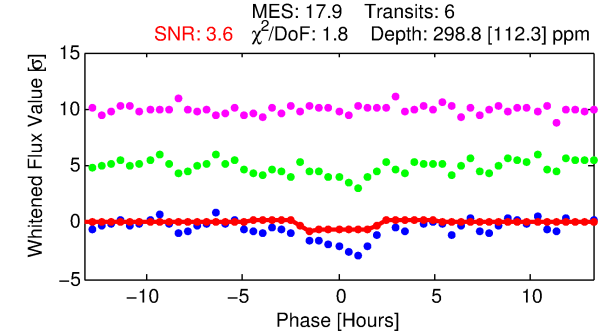
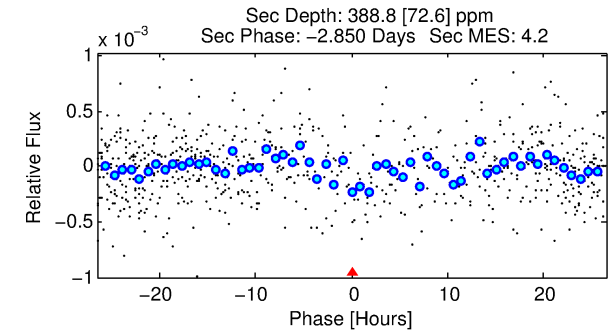
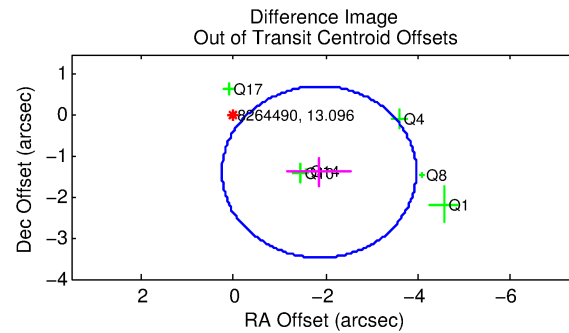
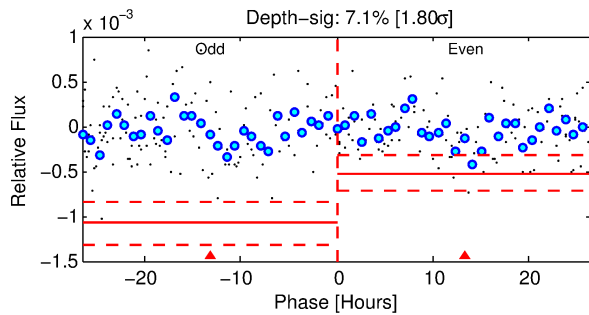
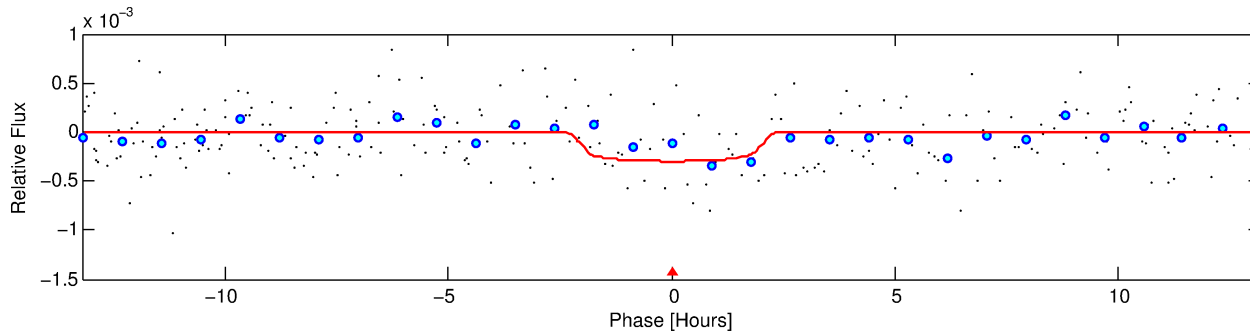
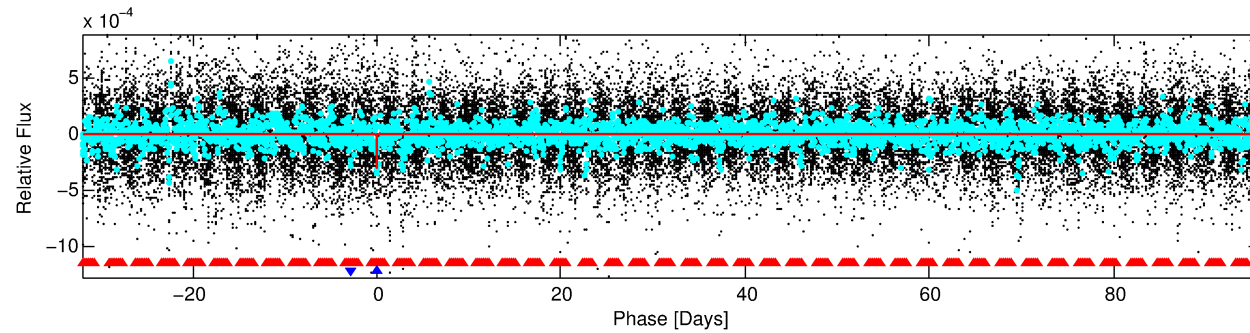
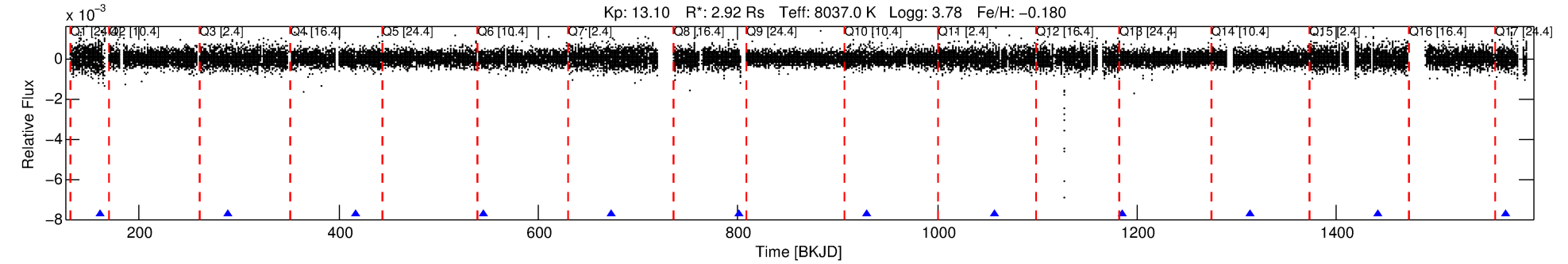
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264490-02

No Significant Match Found

DV One-Page Summary

KIC: 8264490 Candidate: 2 of 2 Period: 128.070 d



DV Fit Results:

Period = 128.07048 [0.00384] d
Epoch = 160.5652 [0.0232] BKJD
Rp/R* = 0.0179 [0.0225]
a/R* = 125.30 [882.41]
b = 0.85 [2.38]
Seff = 84.98 [58.06]
Teq = 774 [132] K
Rp = 5.69 [7.60] Re
a = 0.6118 [0.2584] AU
Ag = 2471.57 [6440.42] [0.38 σ]
Teffp = 8440 [5329] K [1.44 σ]

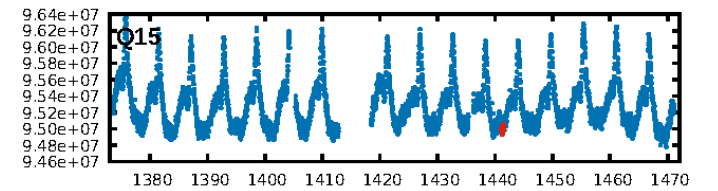
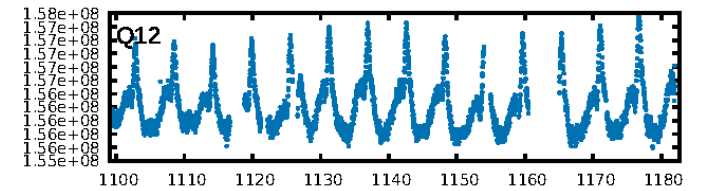
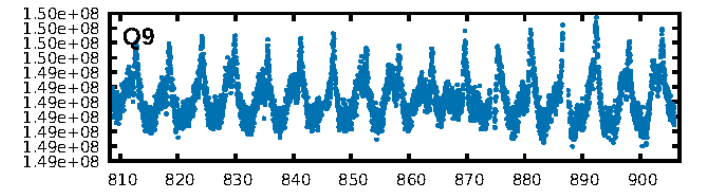
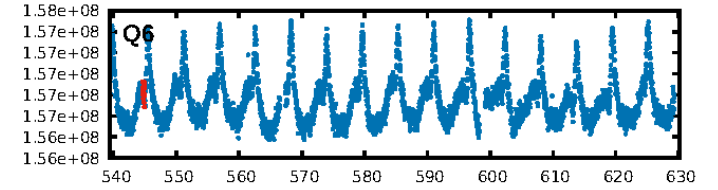
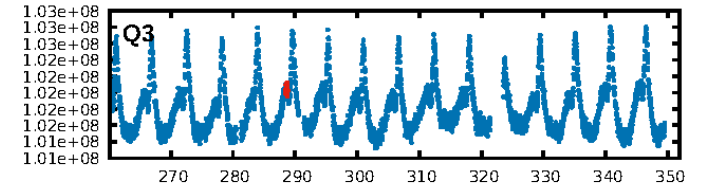
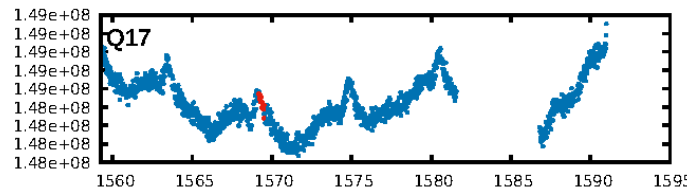
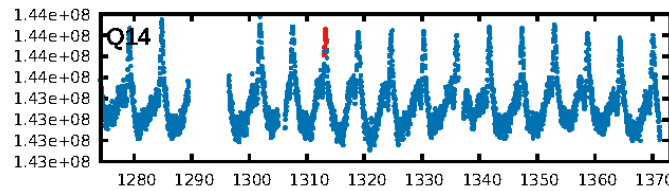
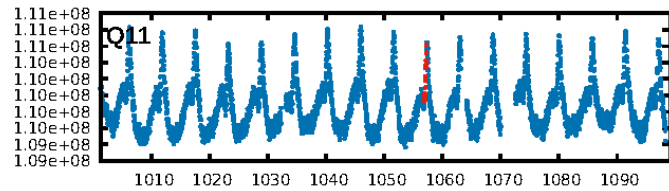
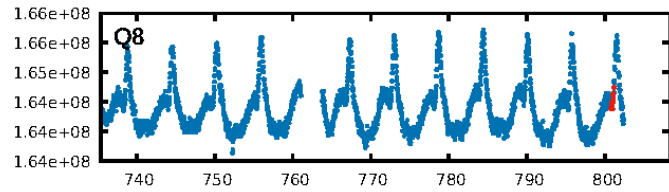
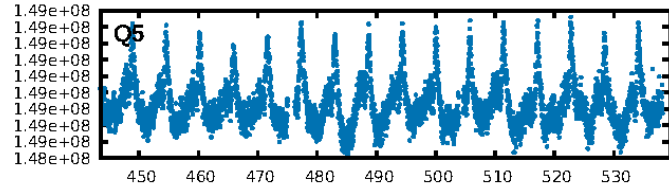
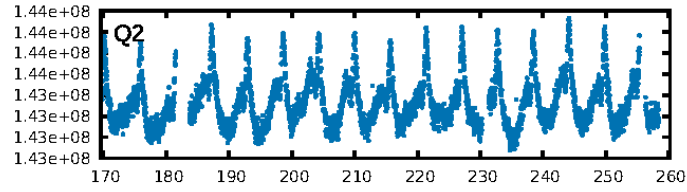
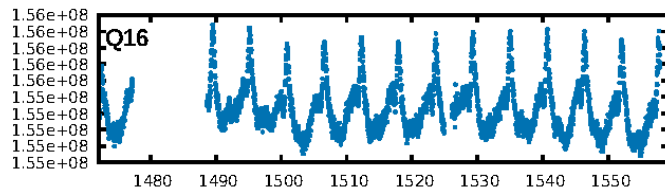
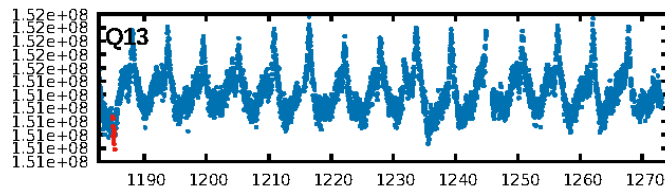
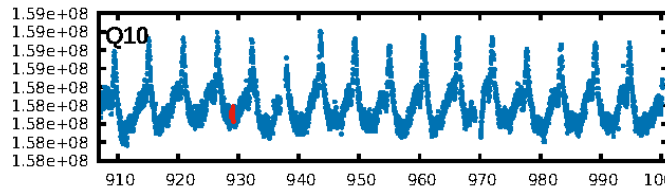
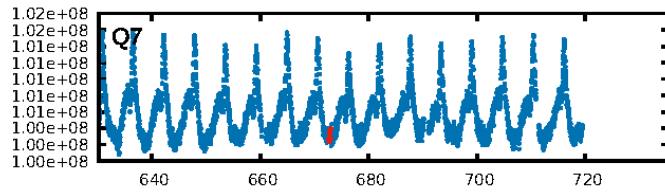
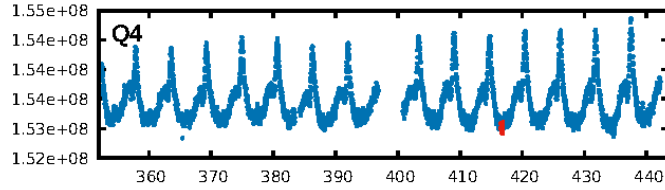
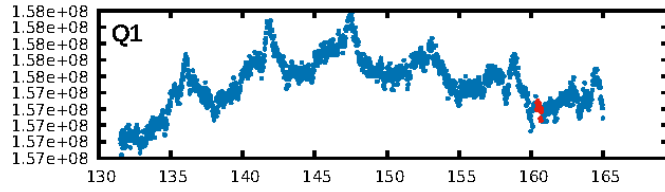
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [345.57 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 94.8%
Bootstrap-pfa: 1.65e-47
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.4959
Centroid-sig: N/A
Centroid-so: 5.300 arcsec [8.47 σ]
OotOffset-rm: 2.316 arcsec [3.31 σ]
KicOffset-rm: 8.699 arcsec [31.69 σ]
OotOffset-st: 2/0/2/2 [6]
KicOffset-st: 2/0/2/2 [6]
DiffImageQuality-fgm: 0.00 [0/6]
DiffImageOverlap-fno: 0.09 [1/11]

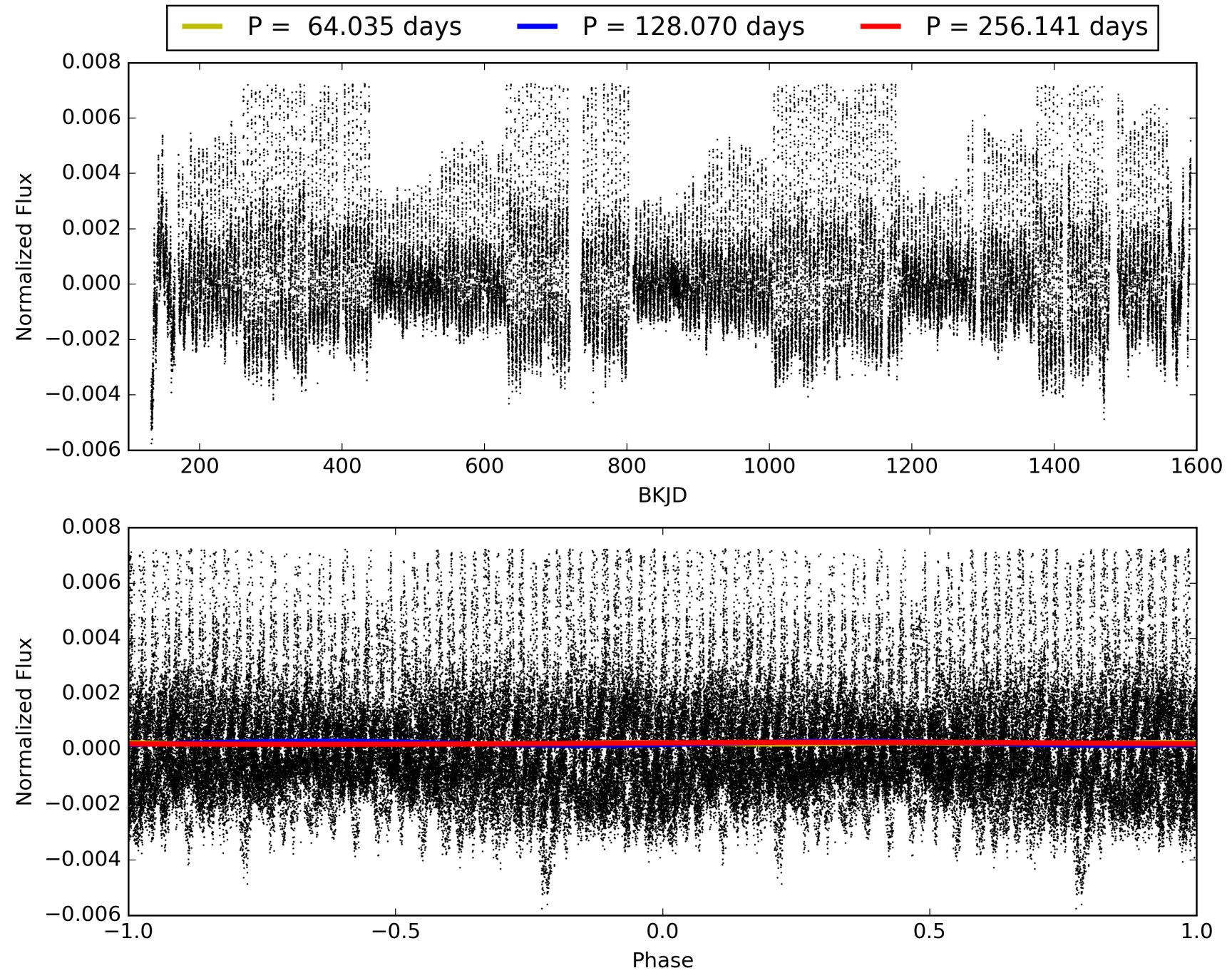
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:40:36 Z

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

TCE 008264490-02, PDC Light Curves

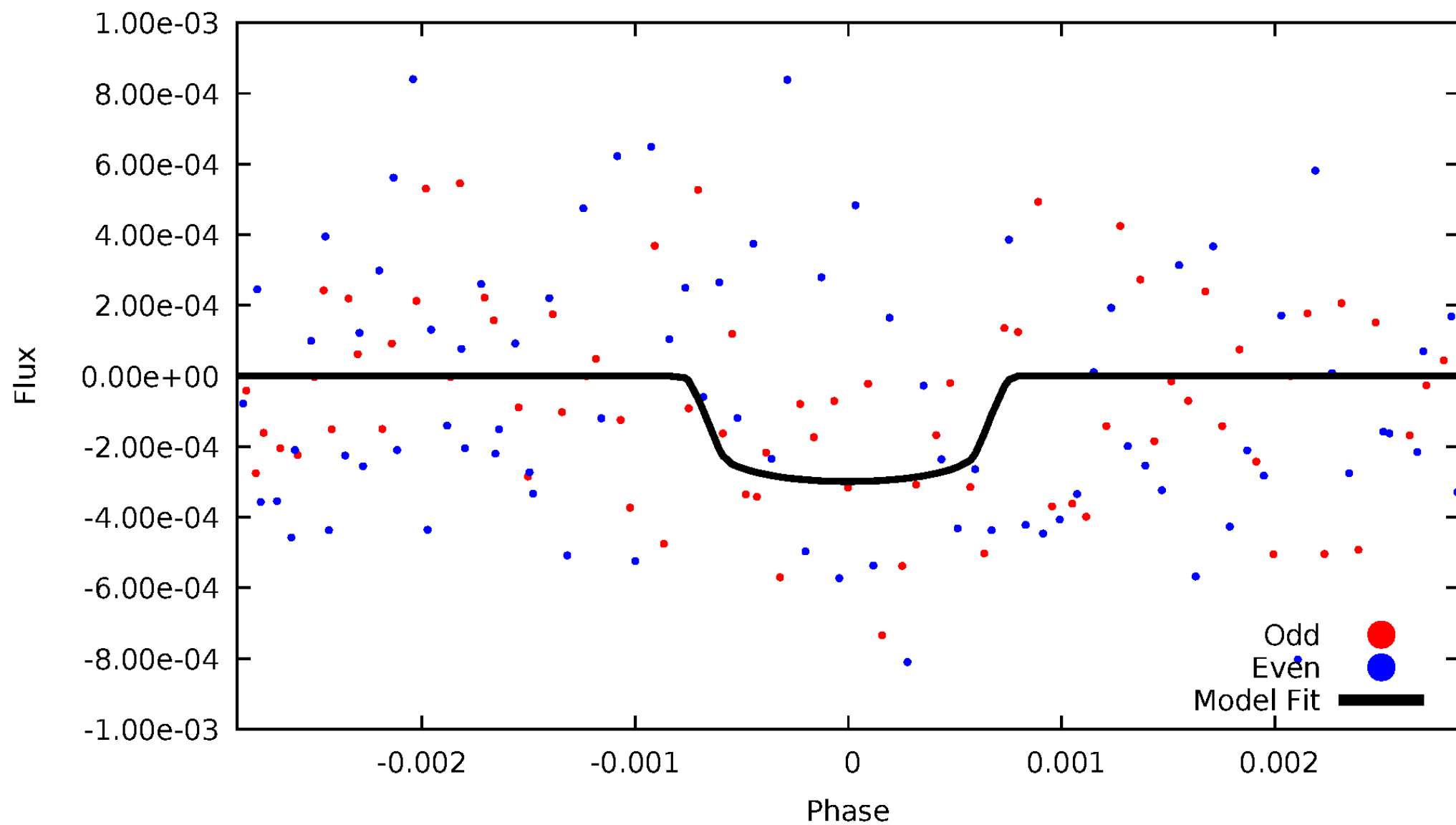


TCE 008264490-02



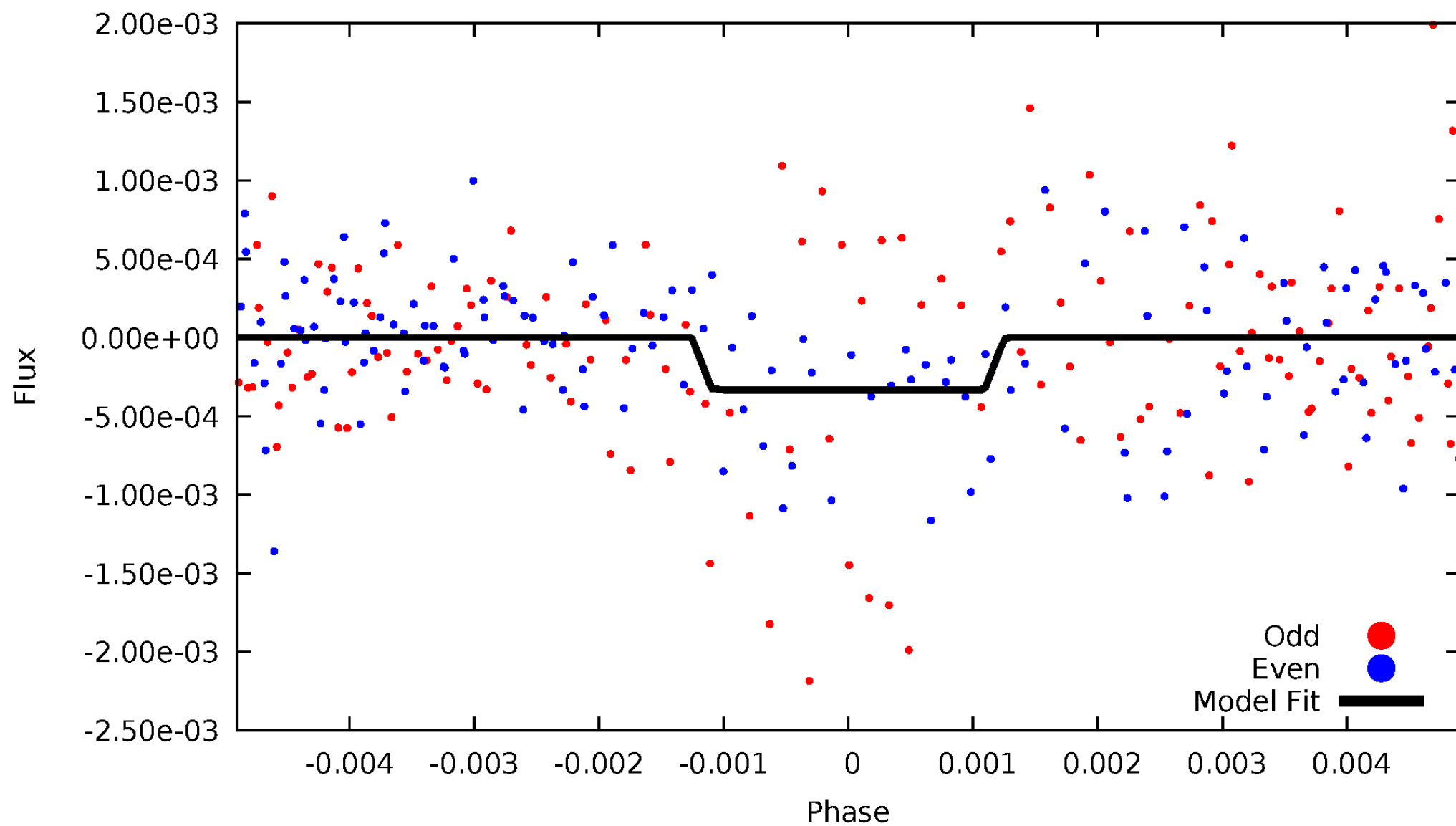
DV Odd/Even

TCE 008264490-02



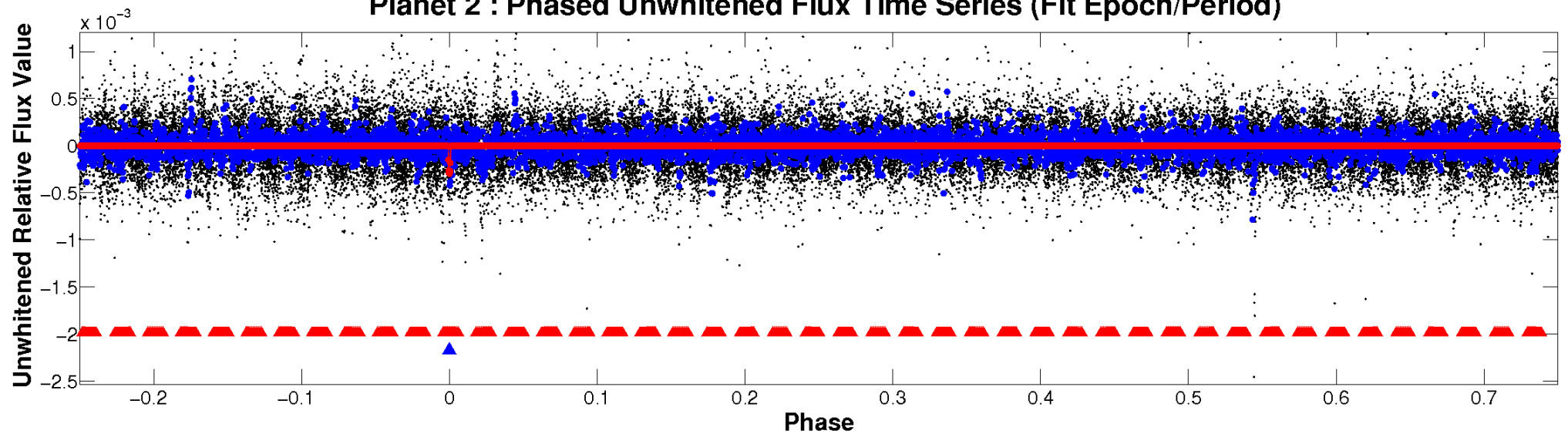
ALT Odd/Even

TCE 008264490-02

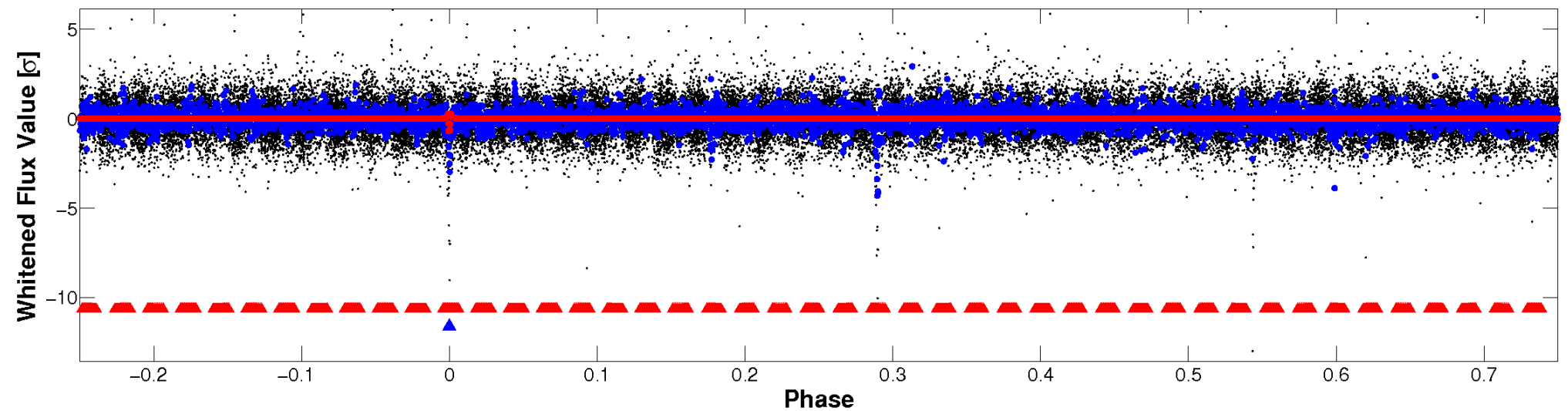


Non-Whitened Vs. Whitened Light Curve

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

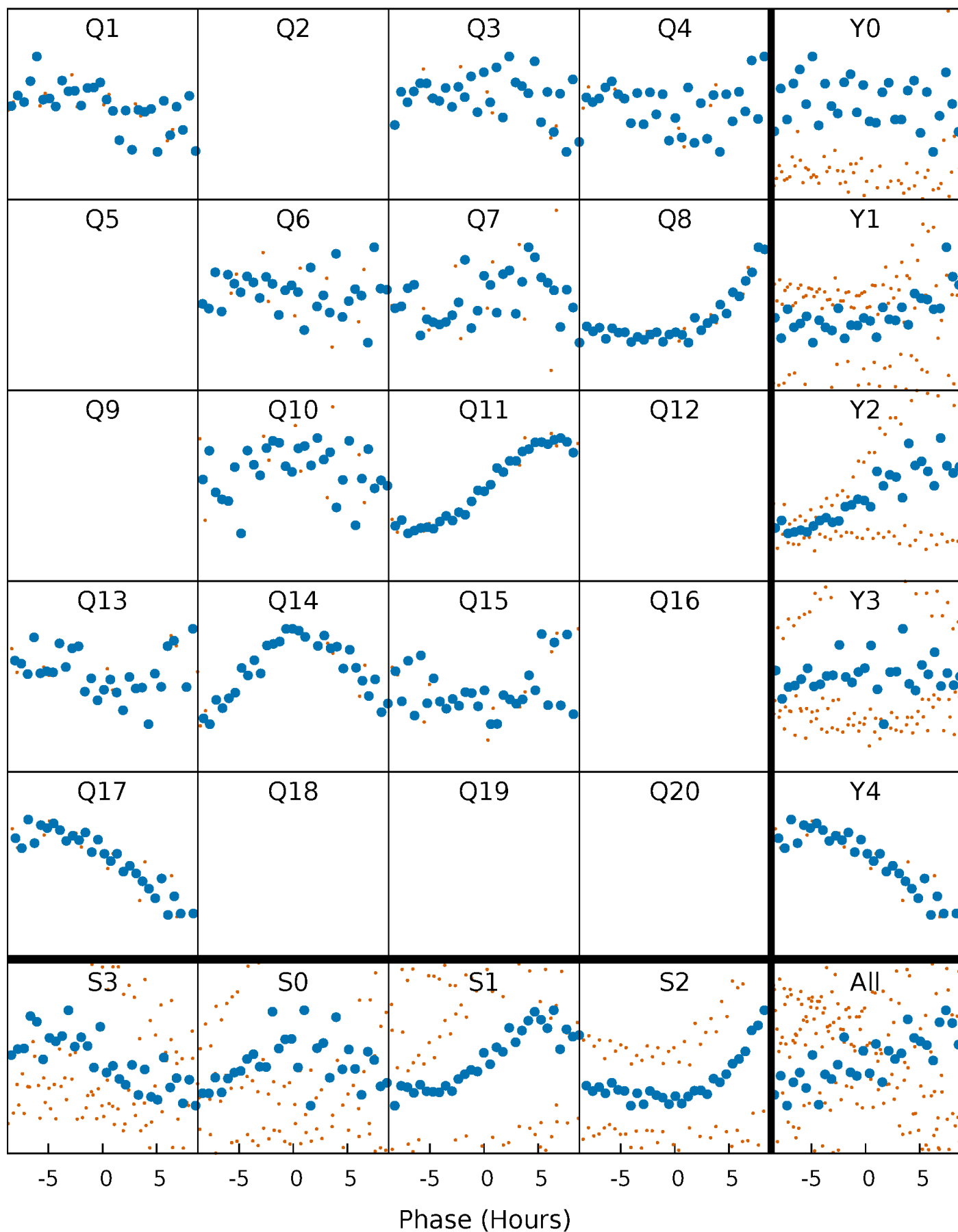


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



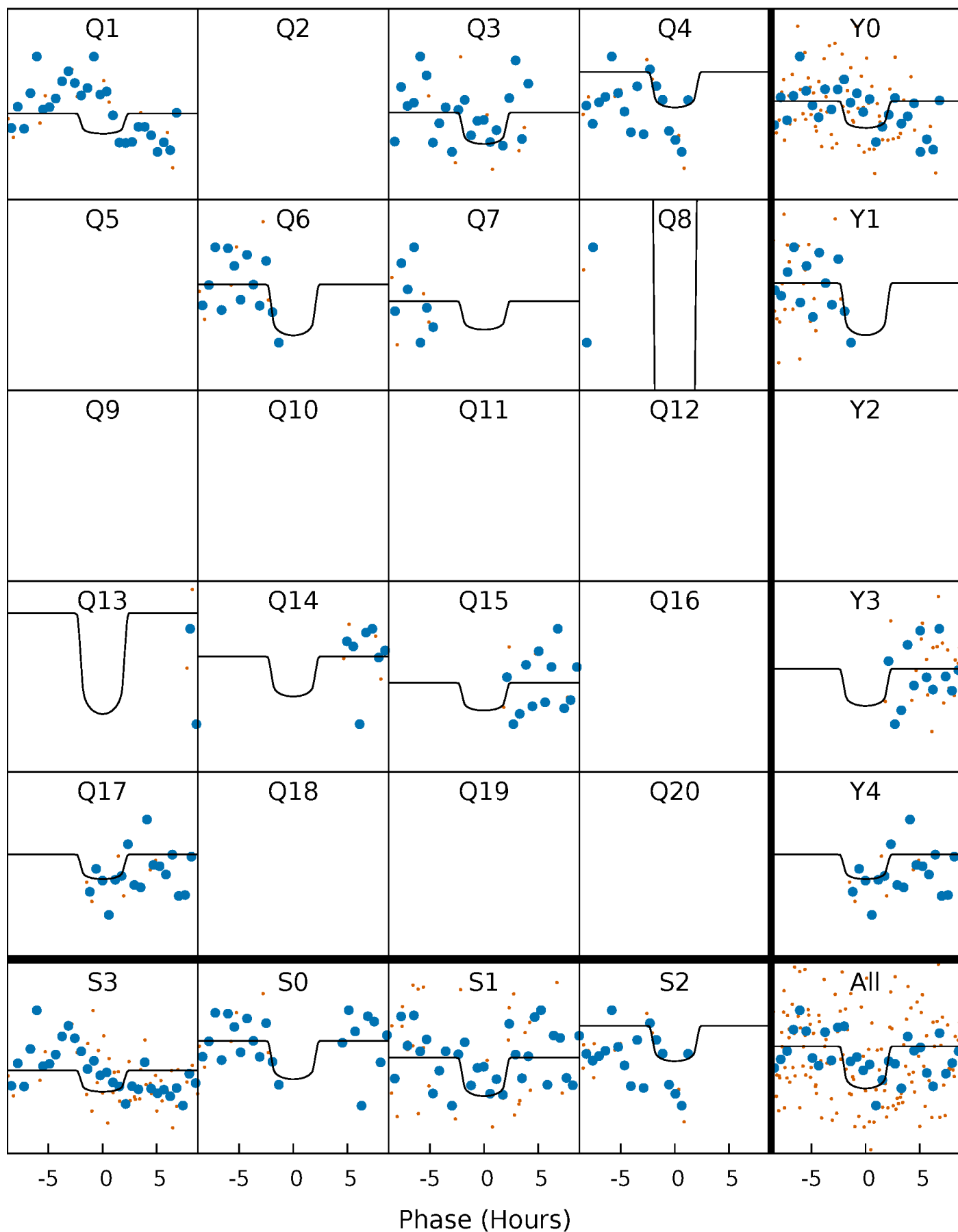
PDC Quarter-Phased Transit Curves

TCE 008264490-02 $P=128.070482$ Days $T_0=160.565206$ (BKJD)



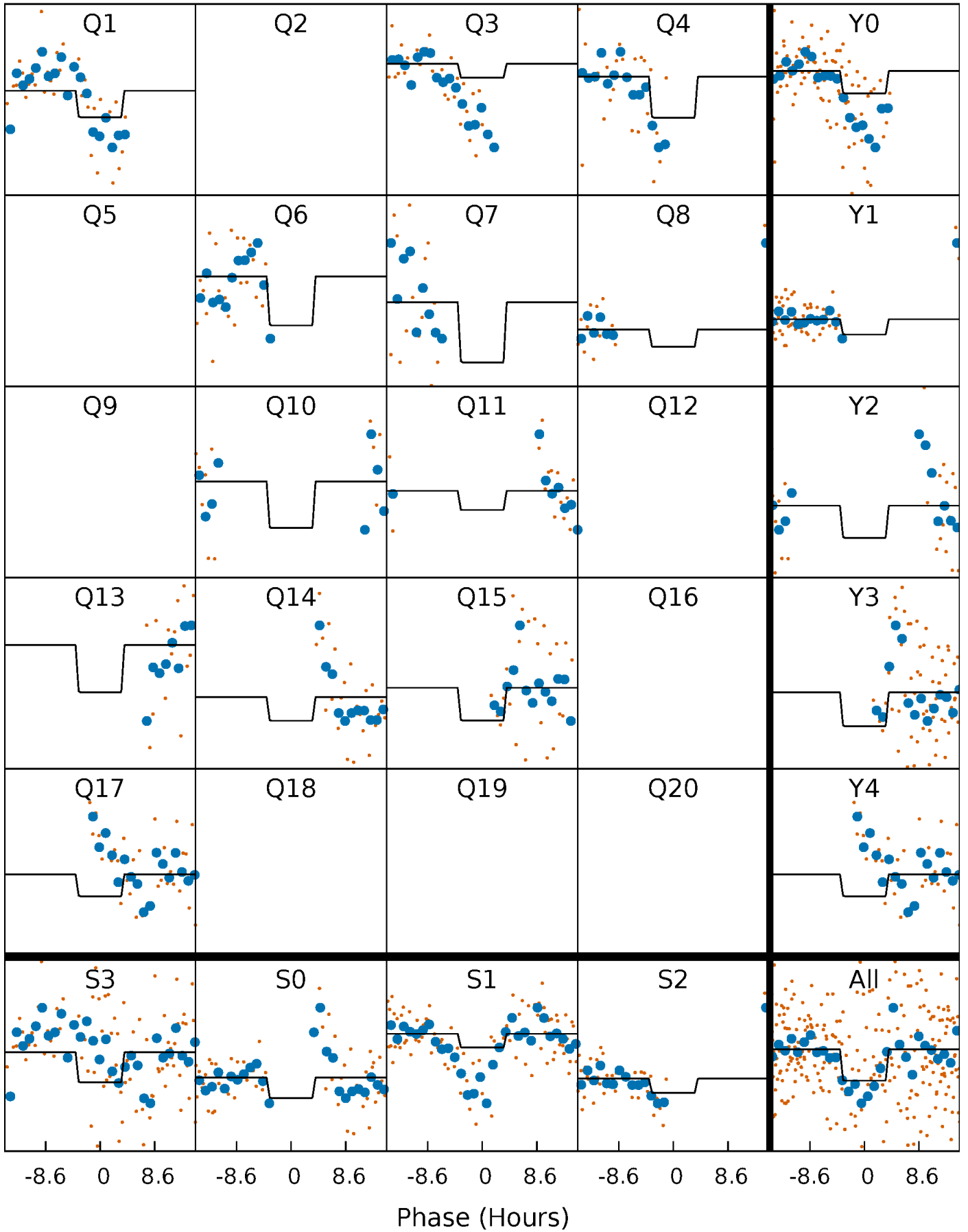
DV Quarter-Phased Transit Curves

TCE 008264490-02 $P=128.070482$ Days $T_0=160.565206$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

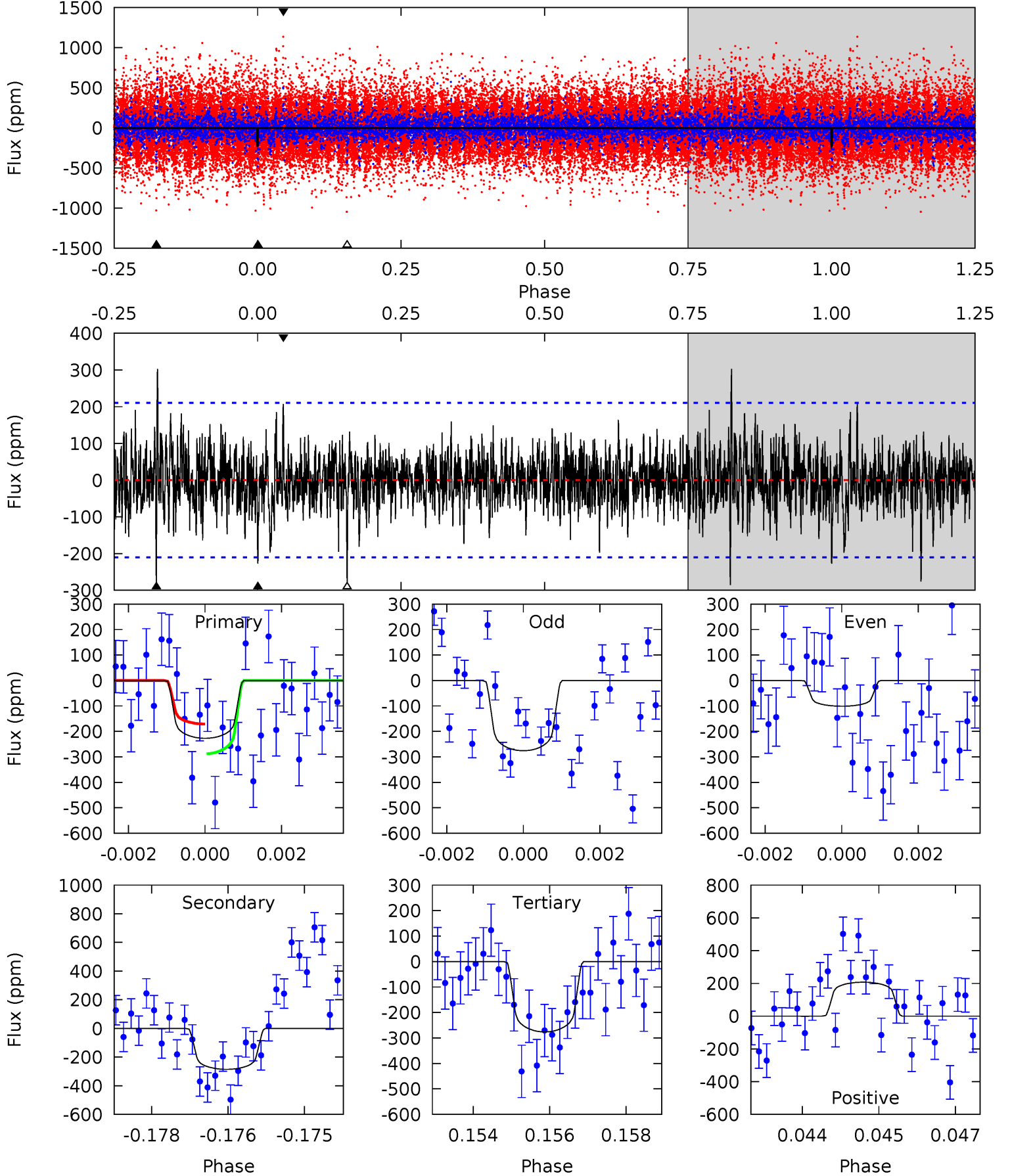
TCE 008264490-02 P=128.059810 Days $T_0=160.688992$ (BKJD)



DV Model-Shift Uniqueness Test

008264490-02, $P = 128.070482$ Days, $E = 32.494724$ Days

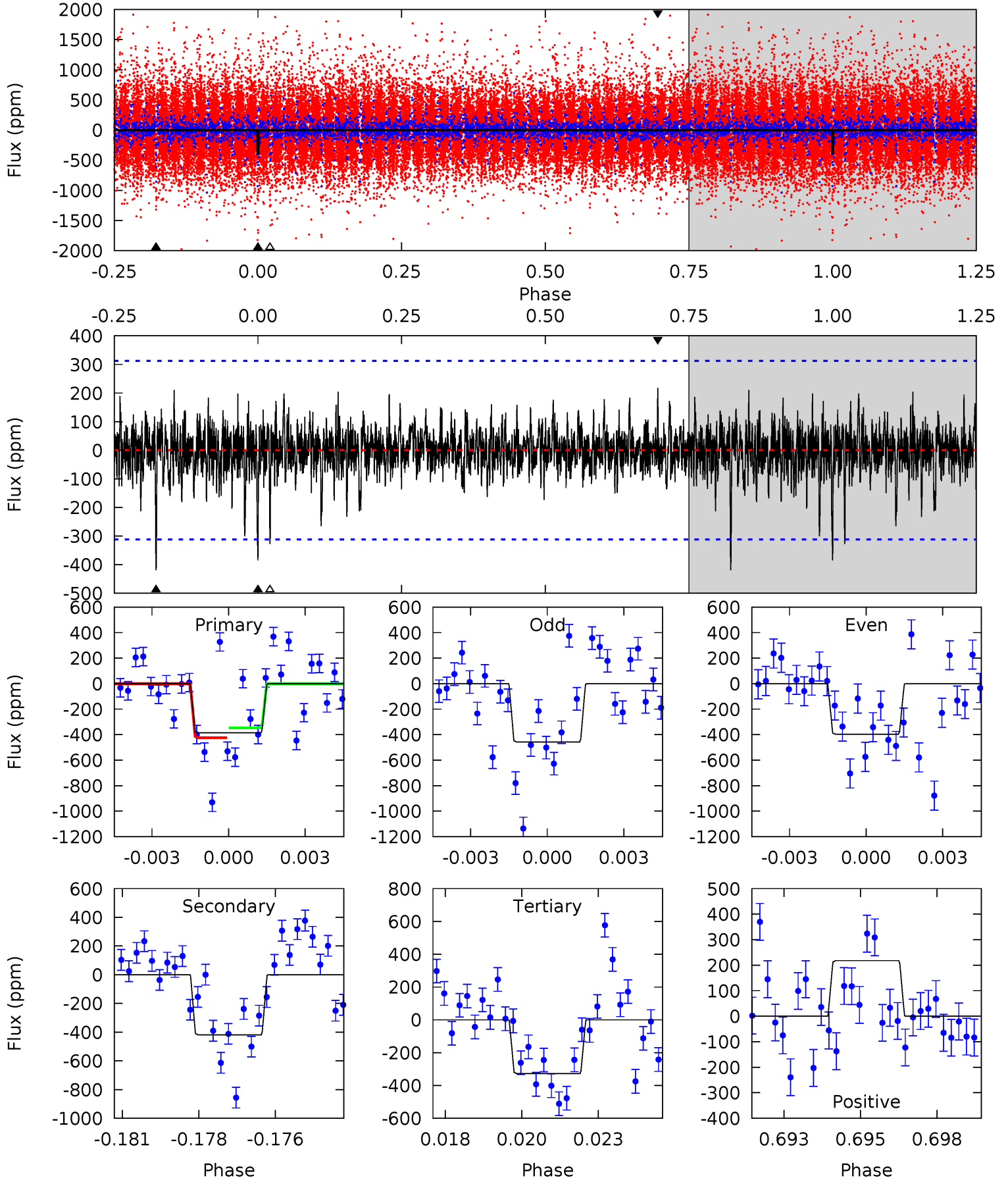
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.80	7.29	7.05	5.29	5.37	3.16	1.39	-1.26	0.50	0.24	2.00	2.28	0.73	0.51	1.50



Alt Model-Shift Uniqueness Test

008264490-02, $P = 128.059810$ Days, $E = 32.629182$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.51	7.09	5.55	3.69	5.29	3.02	0.91	0.96	2.82	1.54	3.41	0.54	1.07	0.34	0.65



Stellar Parameters For KIC 008264490

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8037^{+223}_{-335}	$3.778^{+0.384}_{-0.072}$	$-0.180^{+0.200}_{-0.300}$	$2.917^{+0.414}_{-1.324}$	$1.863^{+0.101}_{-0.379}$	$0.106^{+0.339}_{-0.025}$
	+3%/-4%	+10%/-2%	+111%/-167%	+14%/-45%	+5%/-20%	+321%/-24%
Source	KIC0	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 008264490-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-286 ± 39	$6.97^{+5.93}_{-4.50}$	1052^{+66}_{-101}	6425^{+6524}_{-1475}	1185^{+8658}_{-848}
Alt.	-419 ± 59	$6.87^{+6.09}_{-4.13}$	1044^{+76}_{-112}	7200^{+6712}_{-1856}	1724^{+9997}_{-1228}

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 $A_{\text{obs}} \gg 1.0$

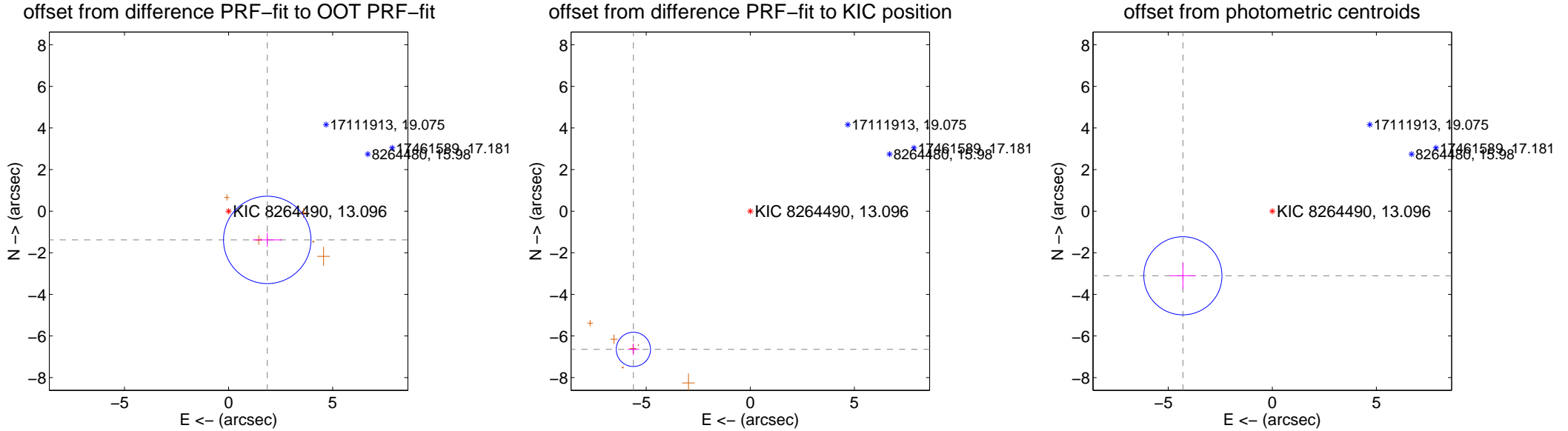
DV Centroid Data

Supplemental centroid analysis for 008264490-02. Kepler magnitude: 13.10. Transit SNR 3.58

There are 0 quarters with good PRF difference image offsets

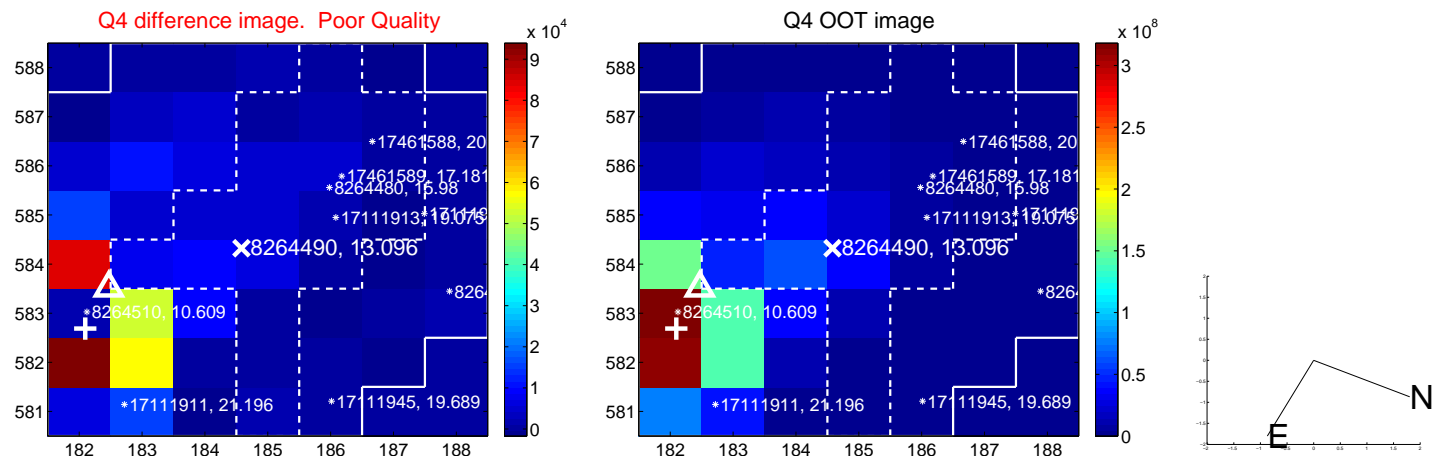
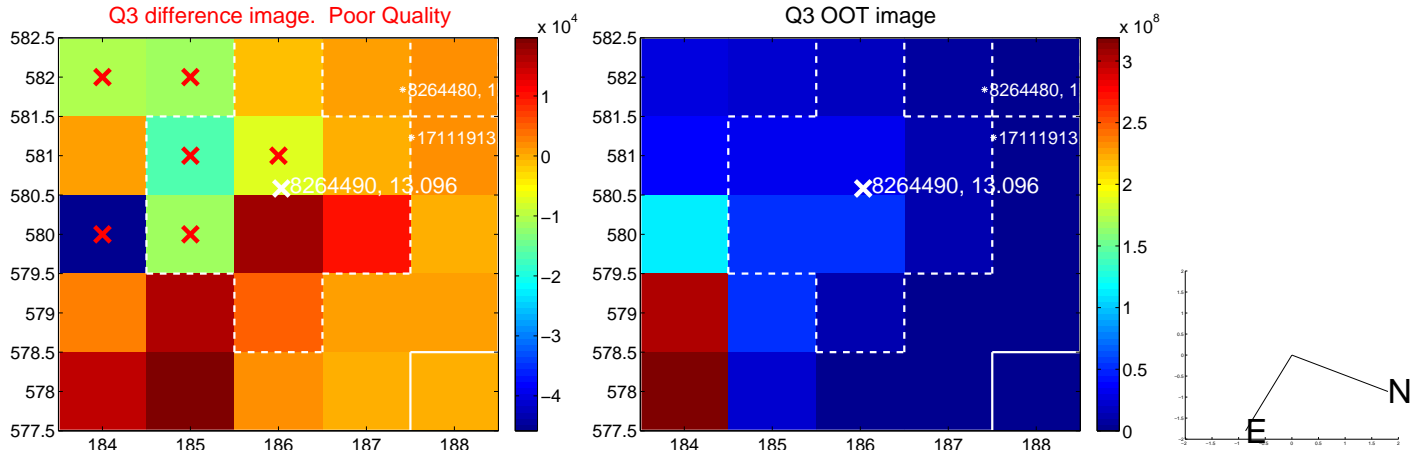
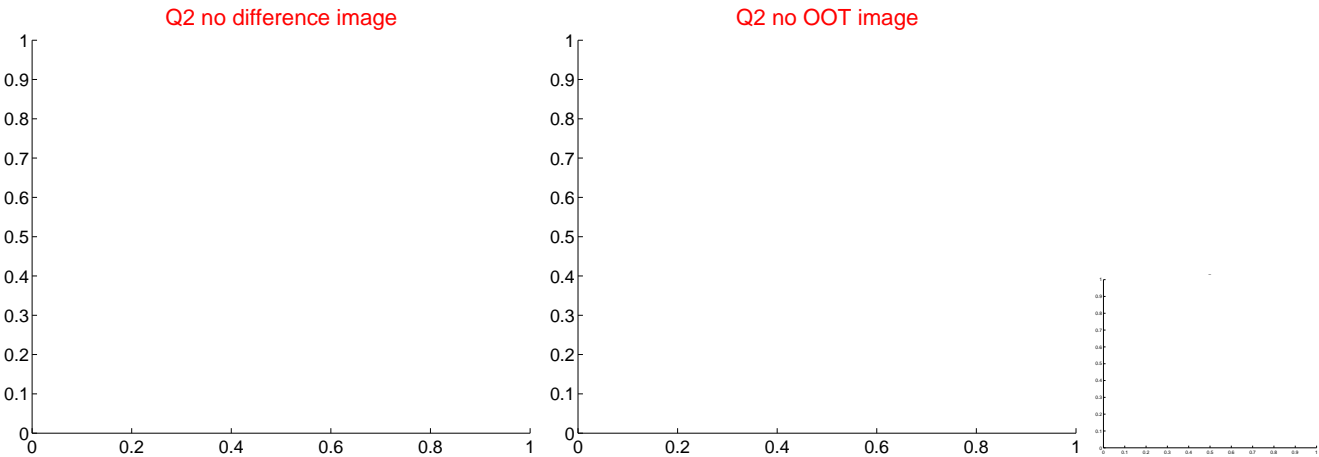
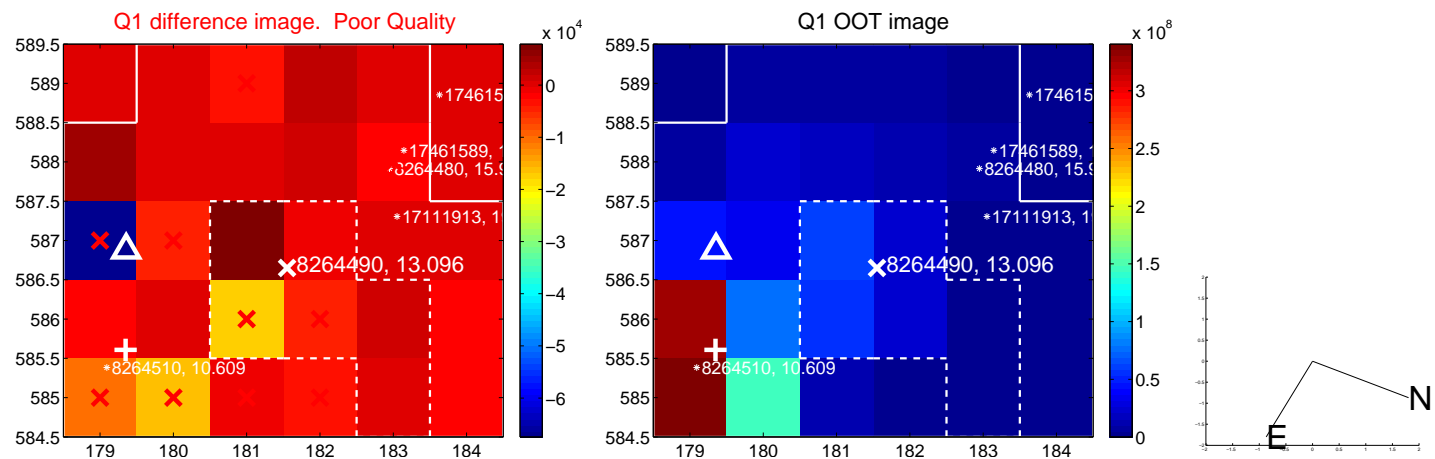
The OOT PRF centroid is offset from the target star catalog position by about 9.72 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.316 ± 0.700	3.31	-1.859 ± 0.703	-1.381 ± 0.330
PRF-fit source offset from KIC position	8.699 ± 0.274	31.69	5.616 ± 0.275	-6.643 ± 0.274
photometric centroid source offset	5.30 ± 0.63	8.47	4.29 ± 0.63	-3.11 ± 0.62

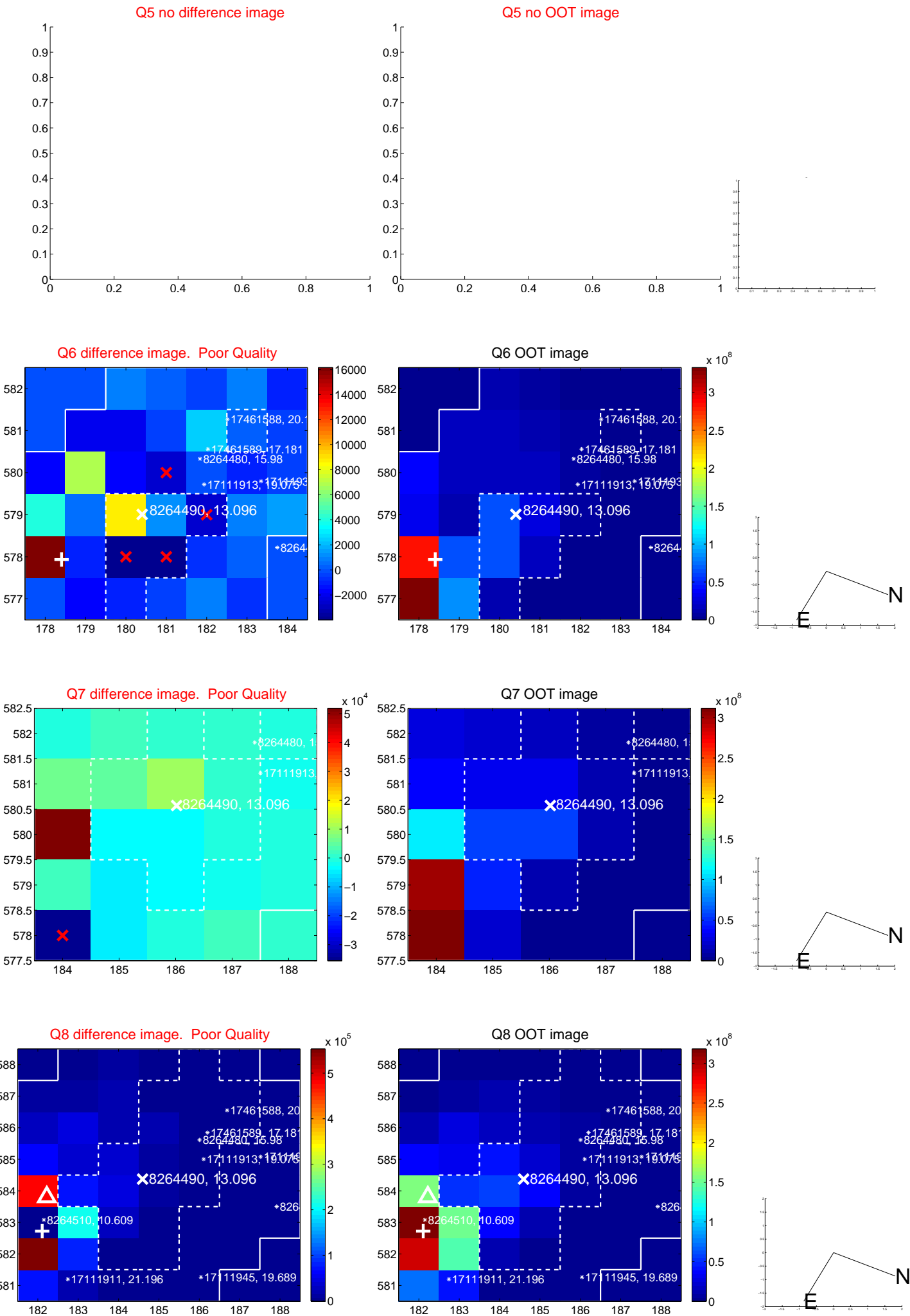


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

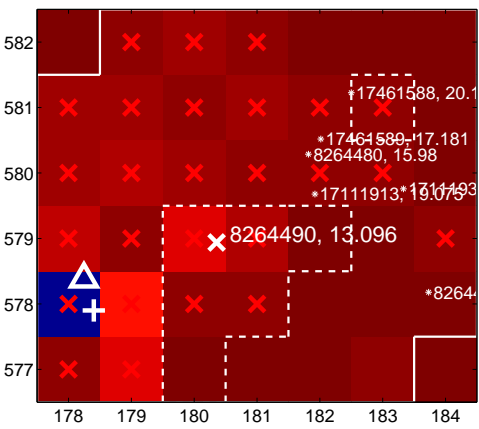
Q9 no difference image



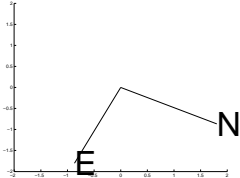
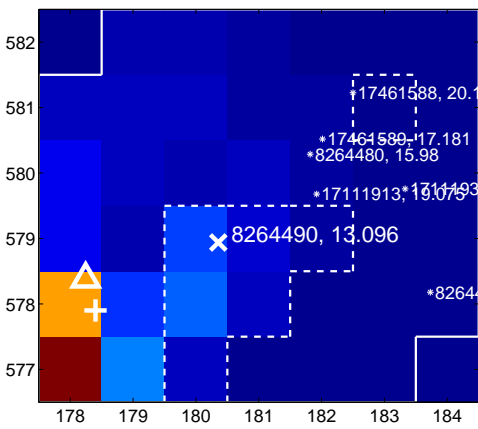
Q9 no OOT image



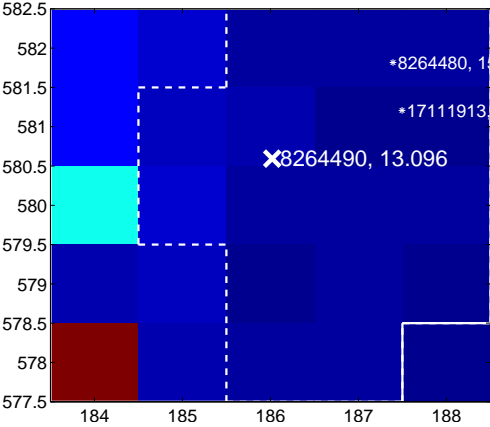
Q10 difference image. Poor Quality



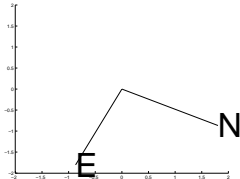
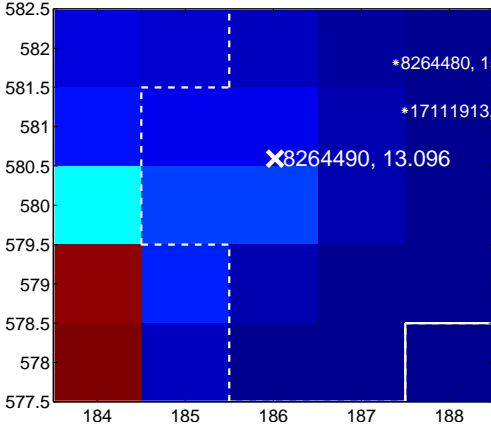
Q10 OOT image



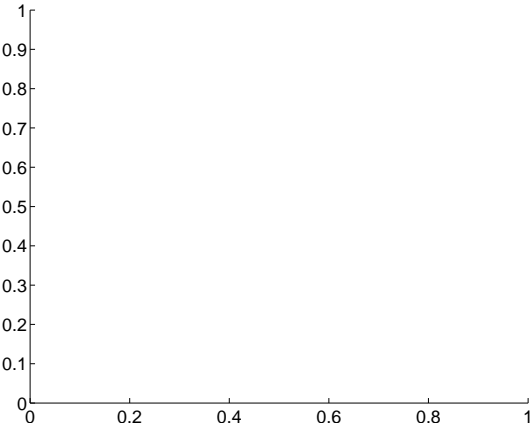
Q11 difference image. Poor Quality



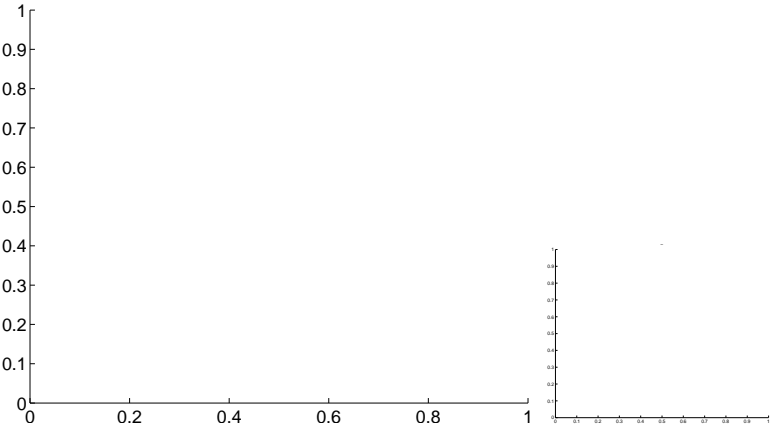
Q11 OOT image



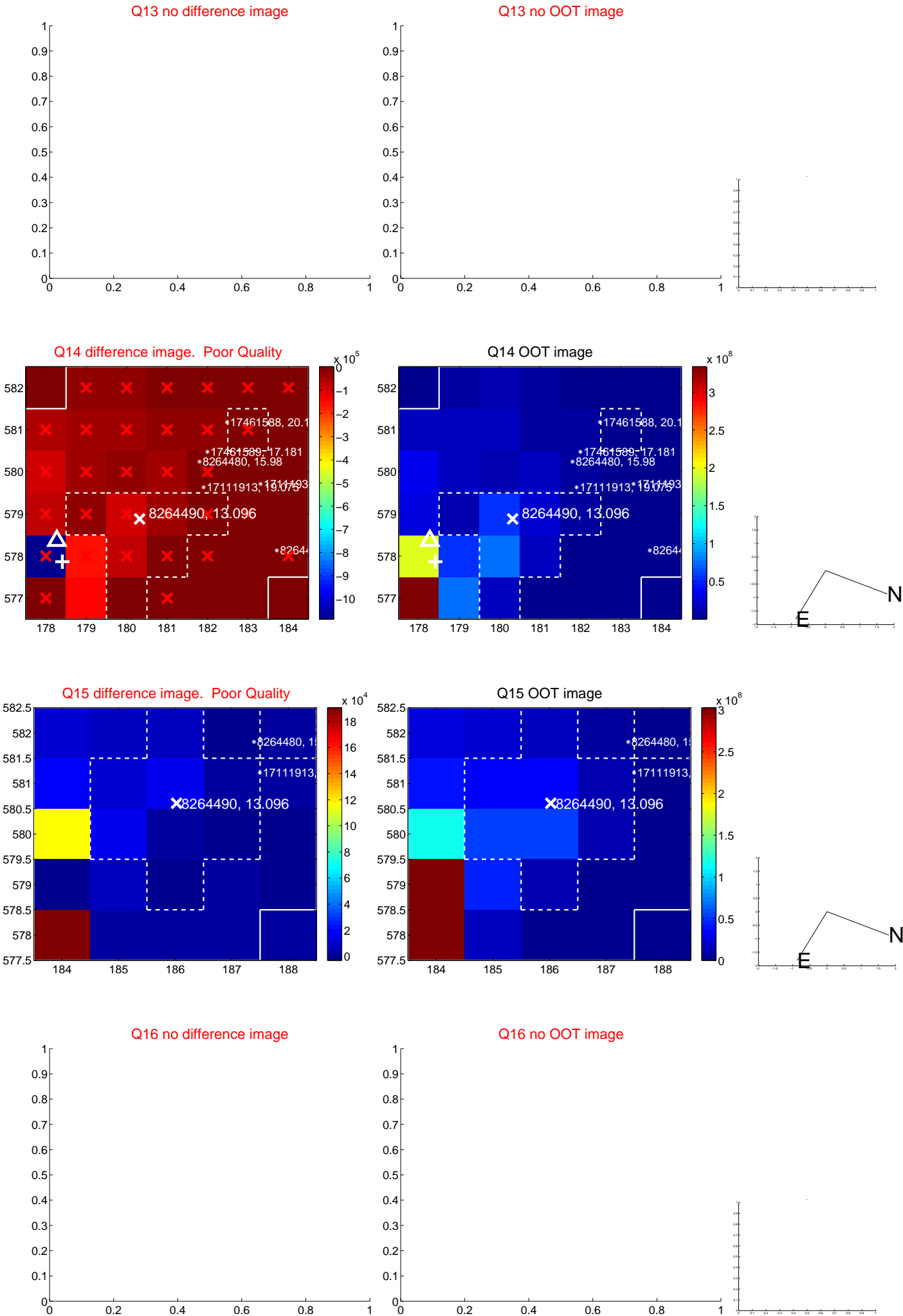
Q12 no difference image



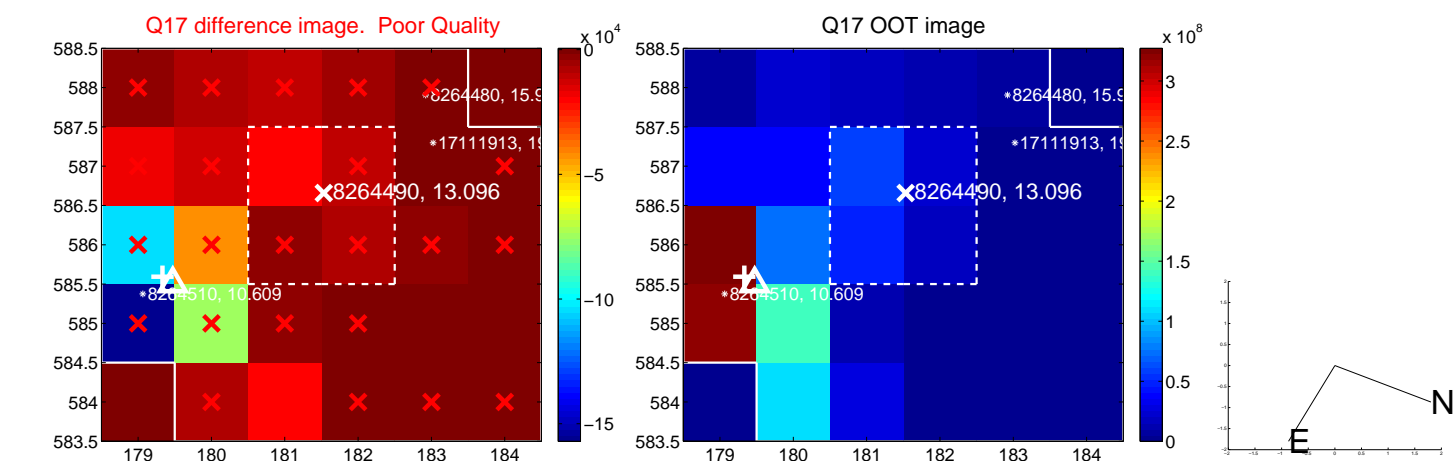
Q12 no OOT image



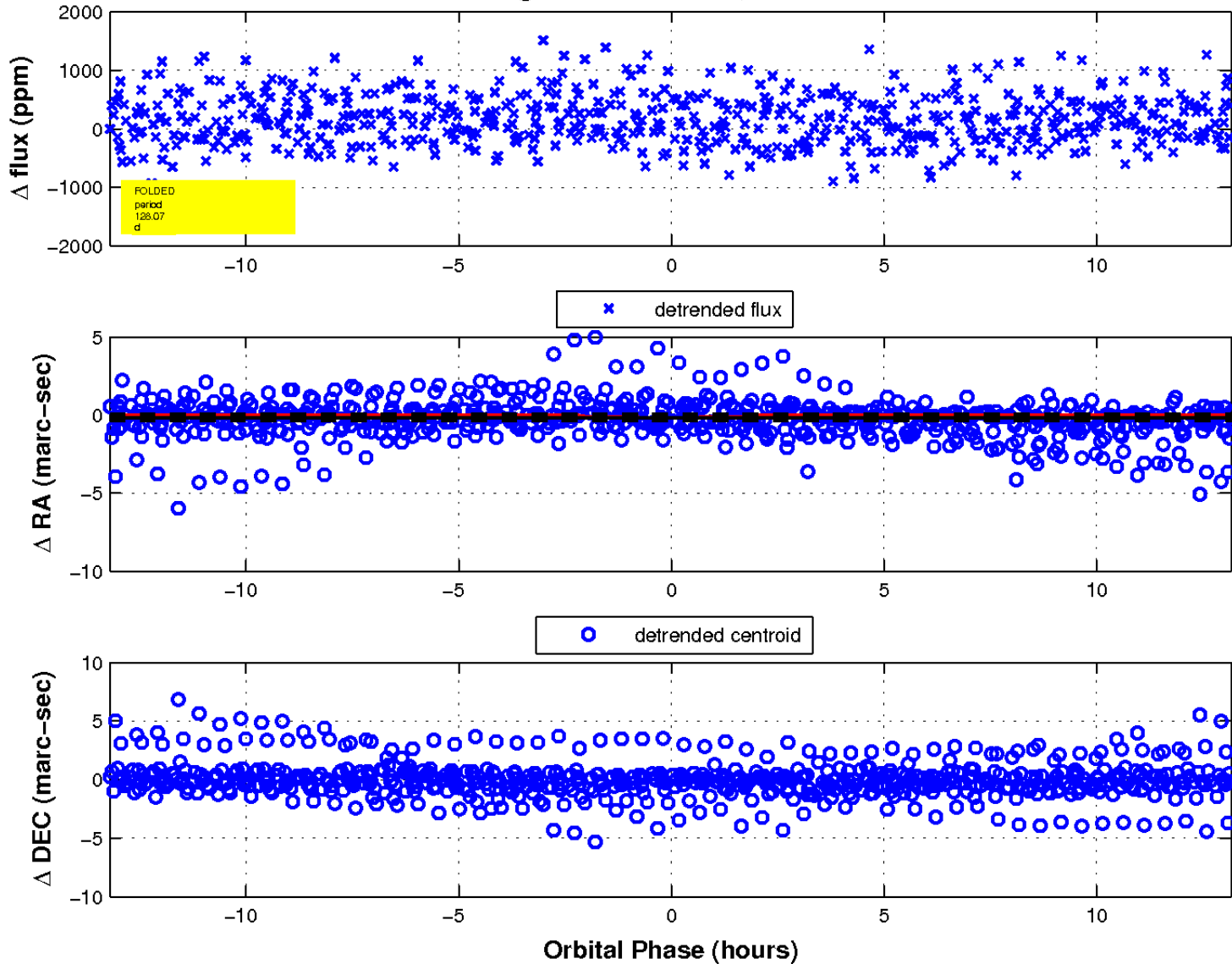
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 2 of 2



UKIRT Image

