

KIC 011569628

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})
011569628-01	OBS	No	0.920978	132.424803	84.8	3.318	12.9	13.2	1.62	6983	1.72	14377.75
011569628-02	OBS	No	203.814627	140.008271	292.4	41.733	8.9	5.9	1.62	6983	2.92	10.74
011569628-03	OBS	No	0.678444	131.717677	88.9	7.315	9.0	13.6	1.62	6983	1.54	21610.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011569628-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
011569628-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS
011569628-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT

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

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

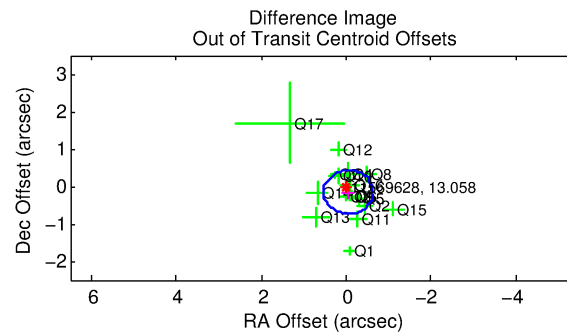
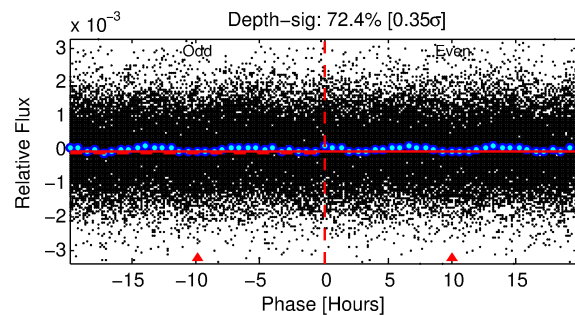
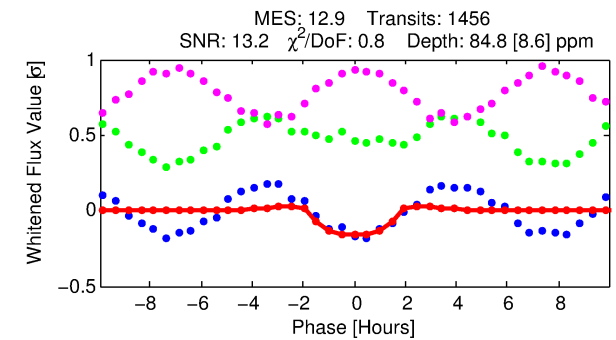
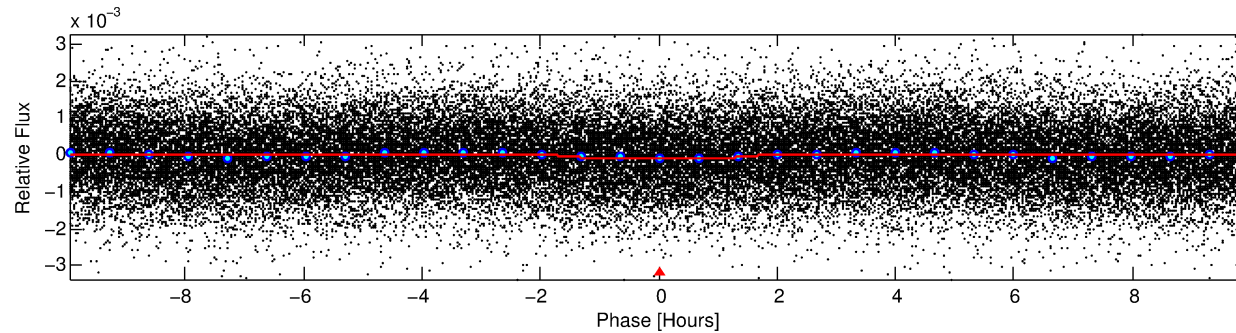
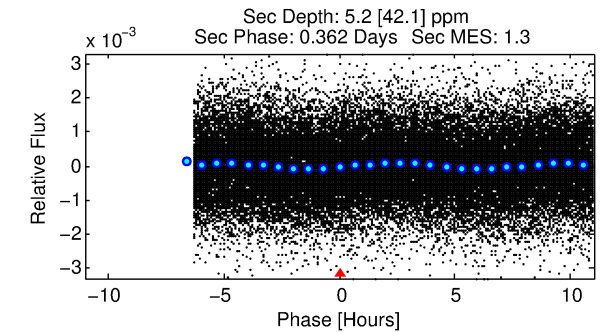
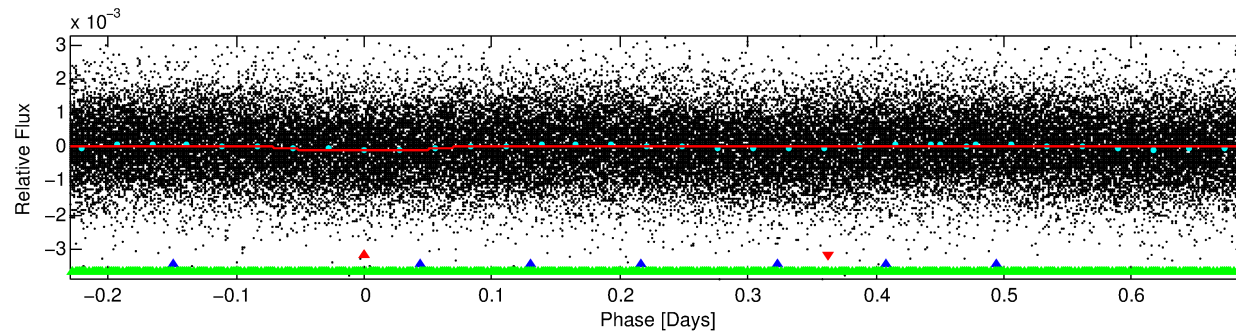
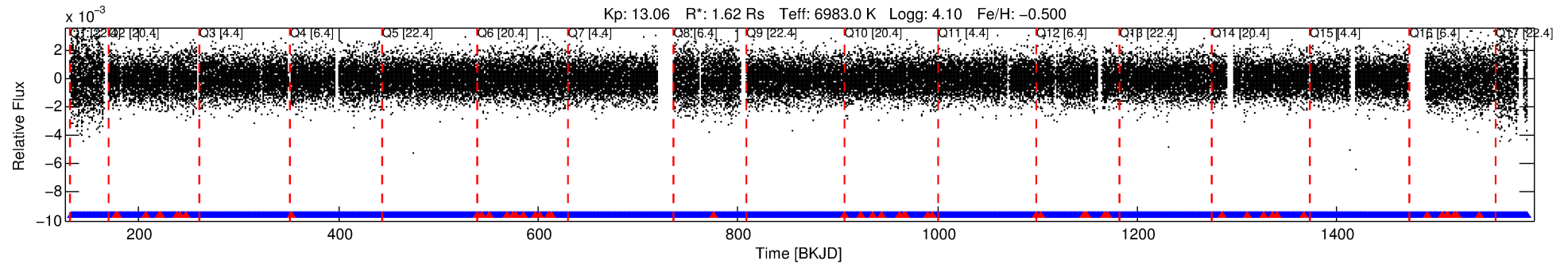
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011569628-01

No Significant Match Found

DV One-Page Summary

KIC: 11569628 Candidate: 1 of 3 Period: 0.921 d



DV Fit Results:

Period = 0.92098 [0.00001] d
Epoch = 132.4248 [0.0032] BKJD
Rp/R* = 0.0097 [0.0060]
a/R* = 1.38 [2.51]
b = 0.89 [0.92]
Seff = 14377.75 [6488.84]
Teq = 2792 [315] K
Rp = 1.71 [1.17] Re
a = 0.0197 [0.0052] AU
Ag = 0.38 [3.09] [-0.20σ]
Teffp = 3388 [6892] K [0.09σ]

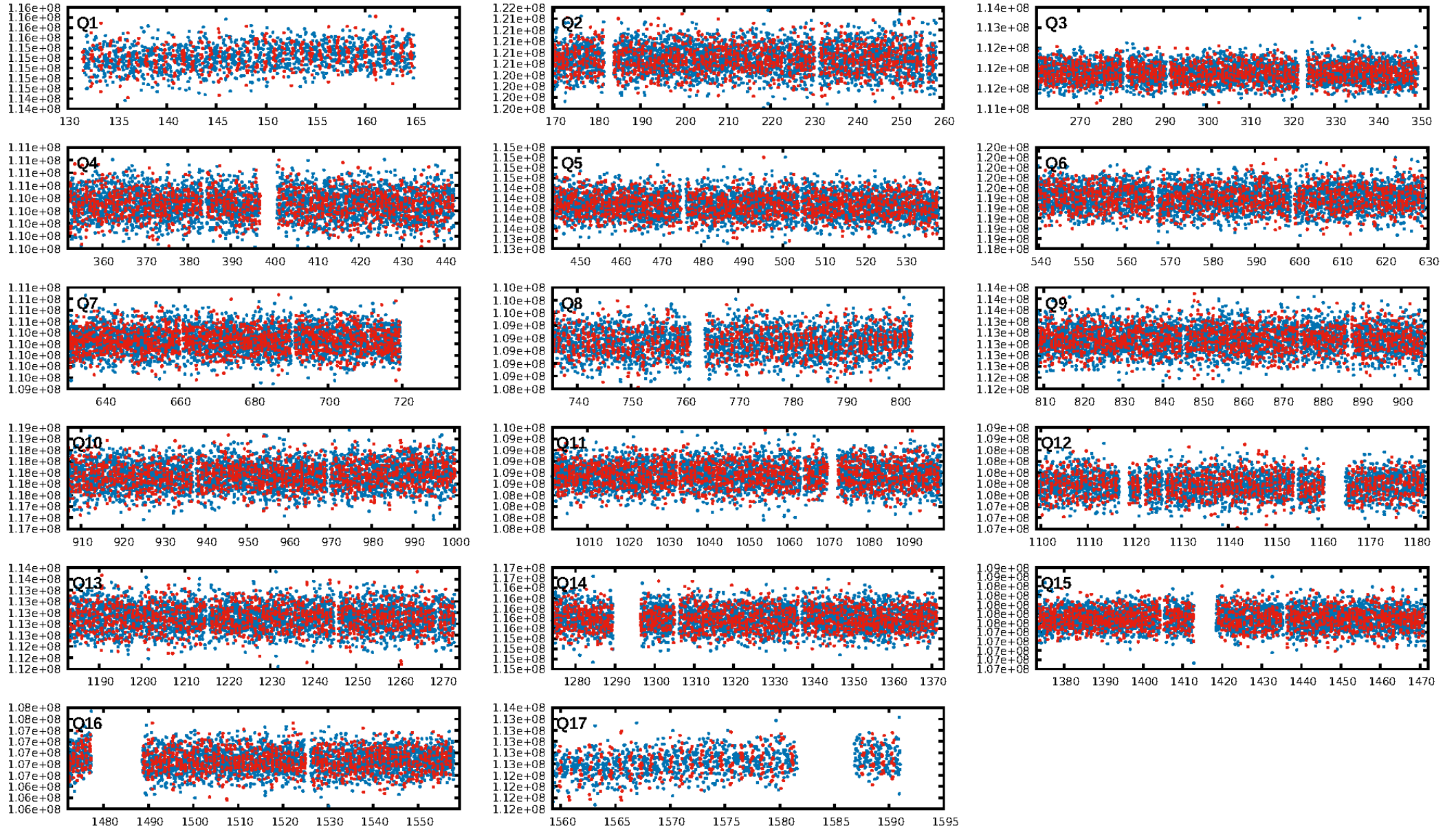
DV Diagnostic Results:

ShortPeriod-sig: 53.1% [0.72σ]
LongPeriod-sig: 100.0% [116.31σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [1339/1391]
GhostDiagnostic-chr: 1.841
Centroid-sig: 0.0%
Centroid-so: 0.437 arcsec [1.43σ]
OotOffset-rm: 0.162 arcsec [0.84σ]
KicOffset-rm: 0.192 arcsec [1.13σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

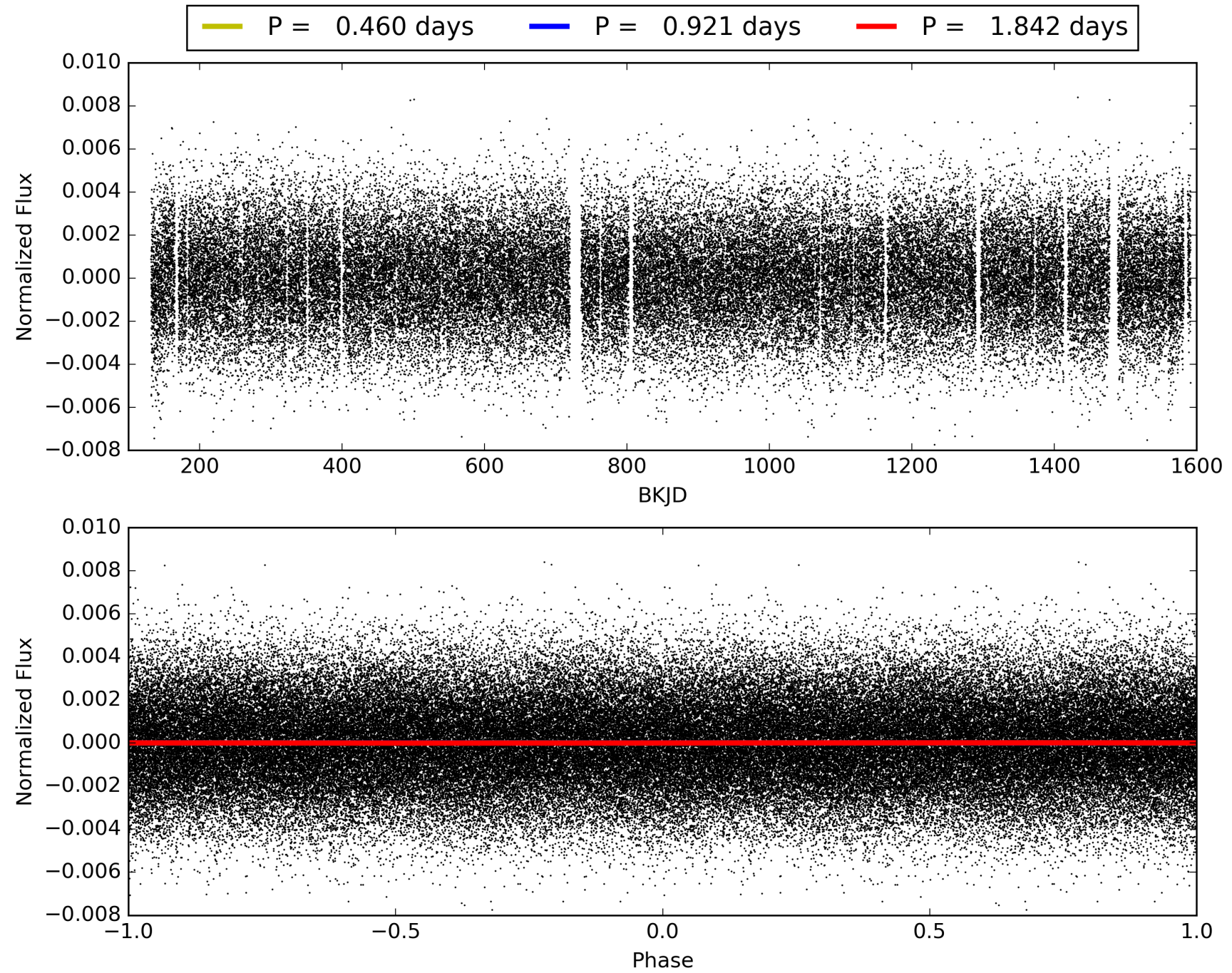
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:59:03 Z

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

TCE 011569628-01, PDC Light Curves

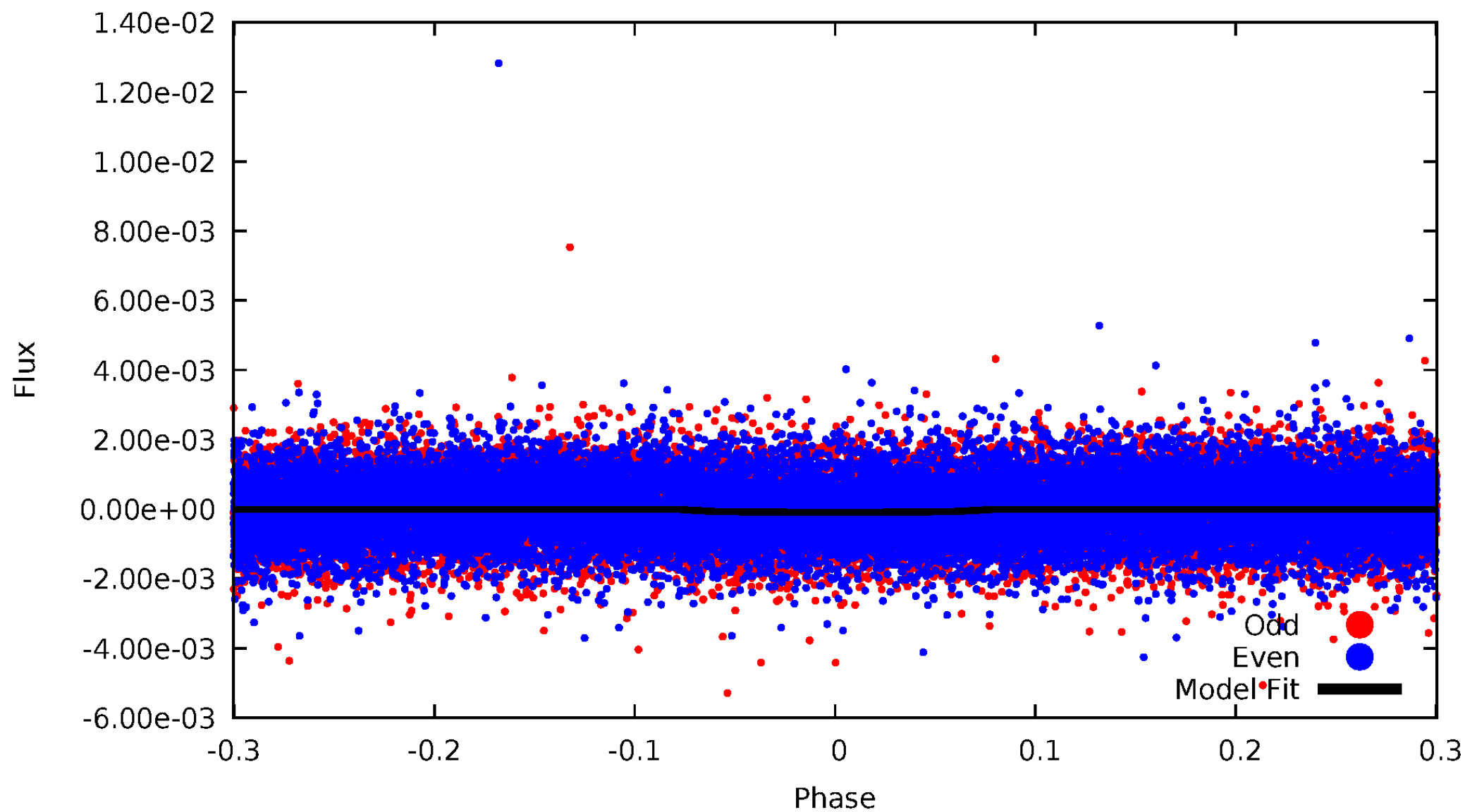


TCE 011569628-01



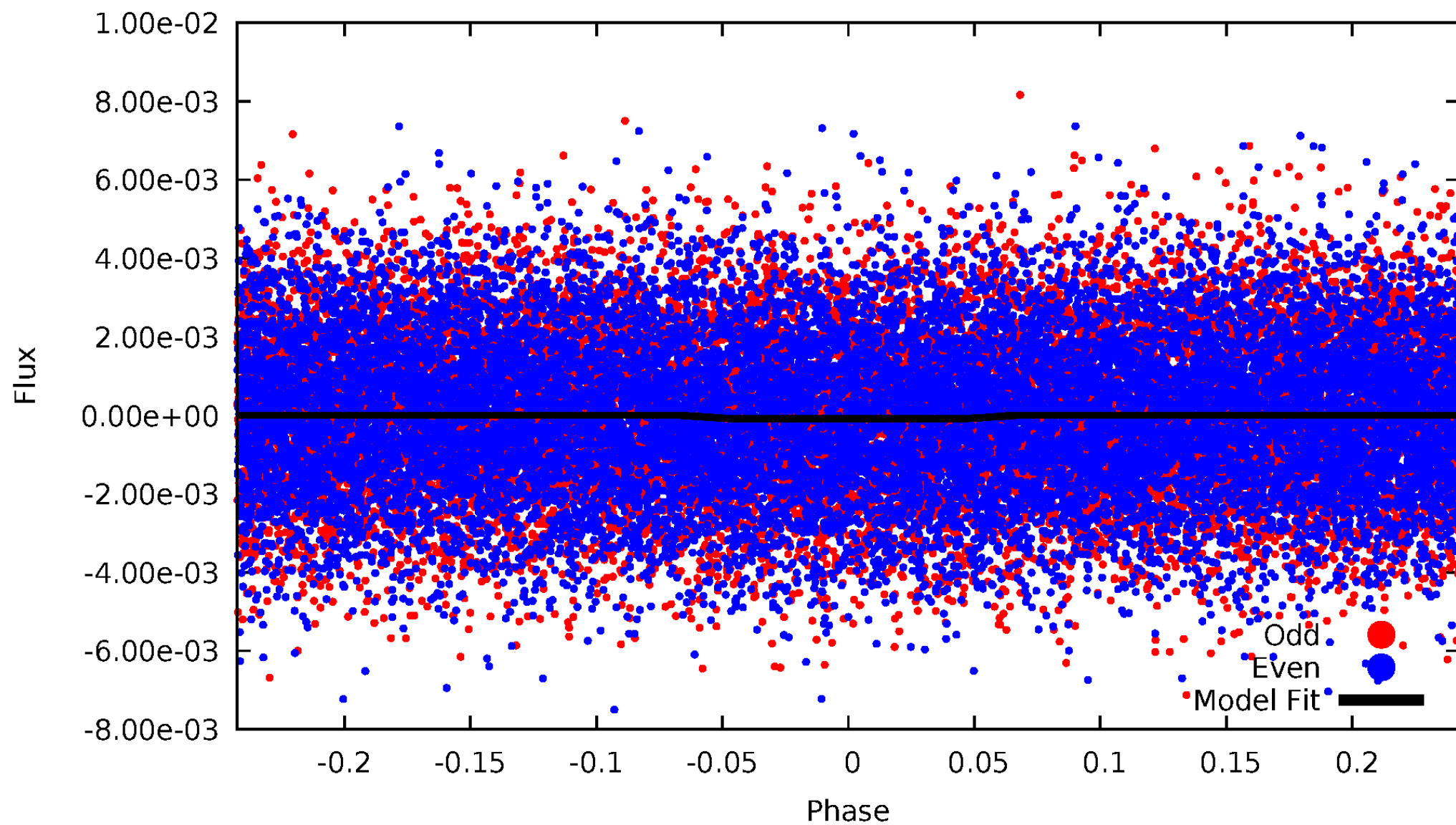
DV Odd/Even

TCE 011569628-01



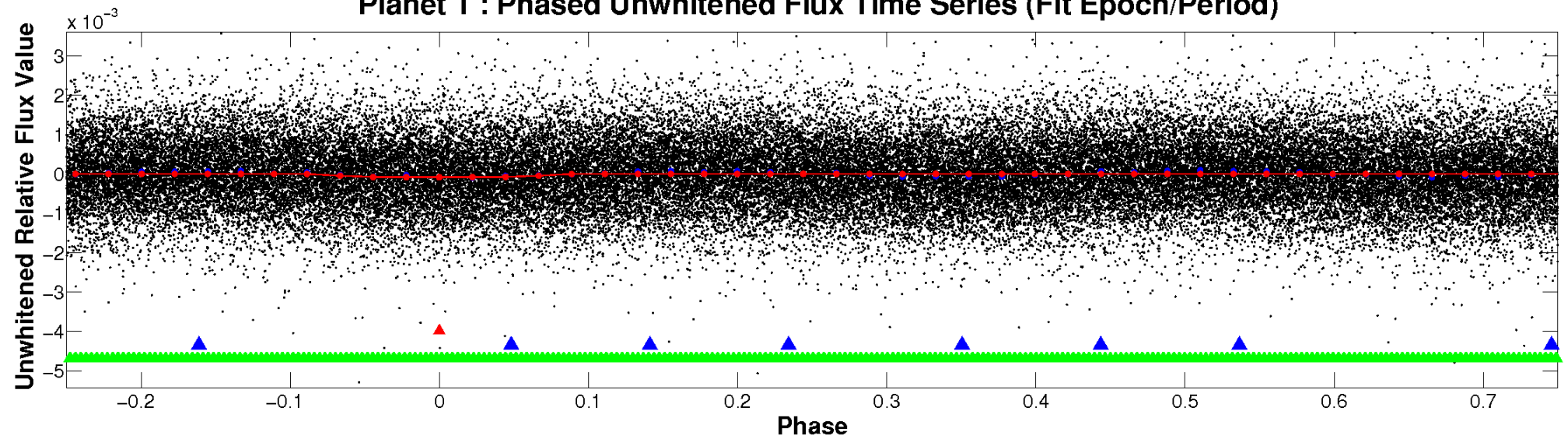
ALT Odd/Even

TCE 011569628-01

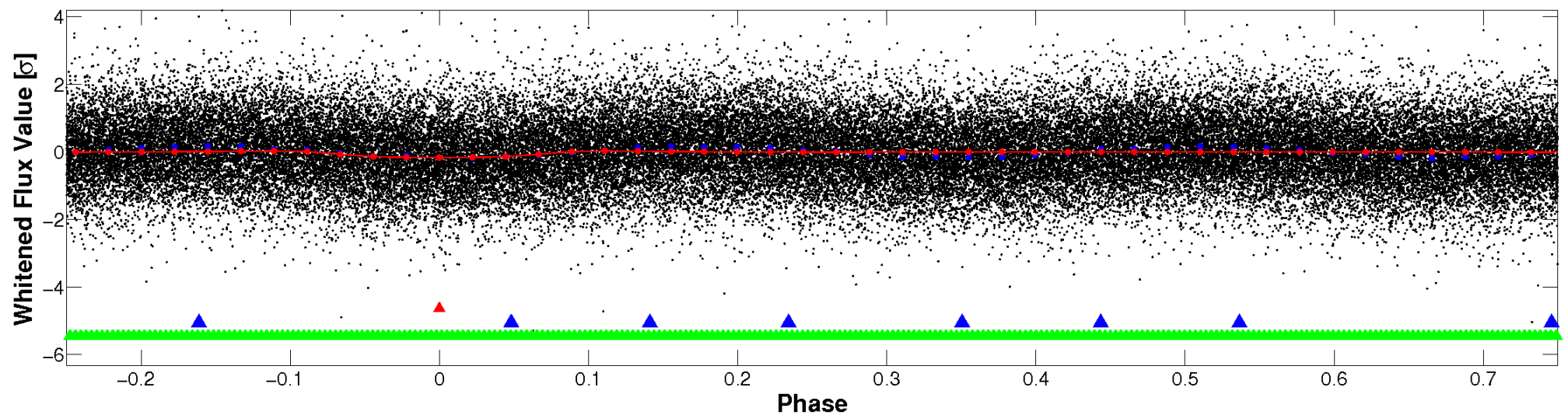


Non-Whitened Vs. Whitened Light Curve

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

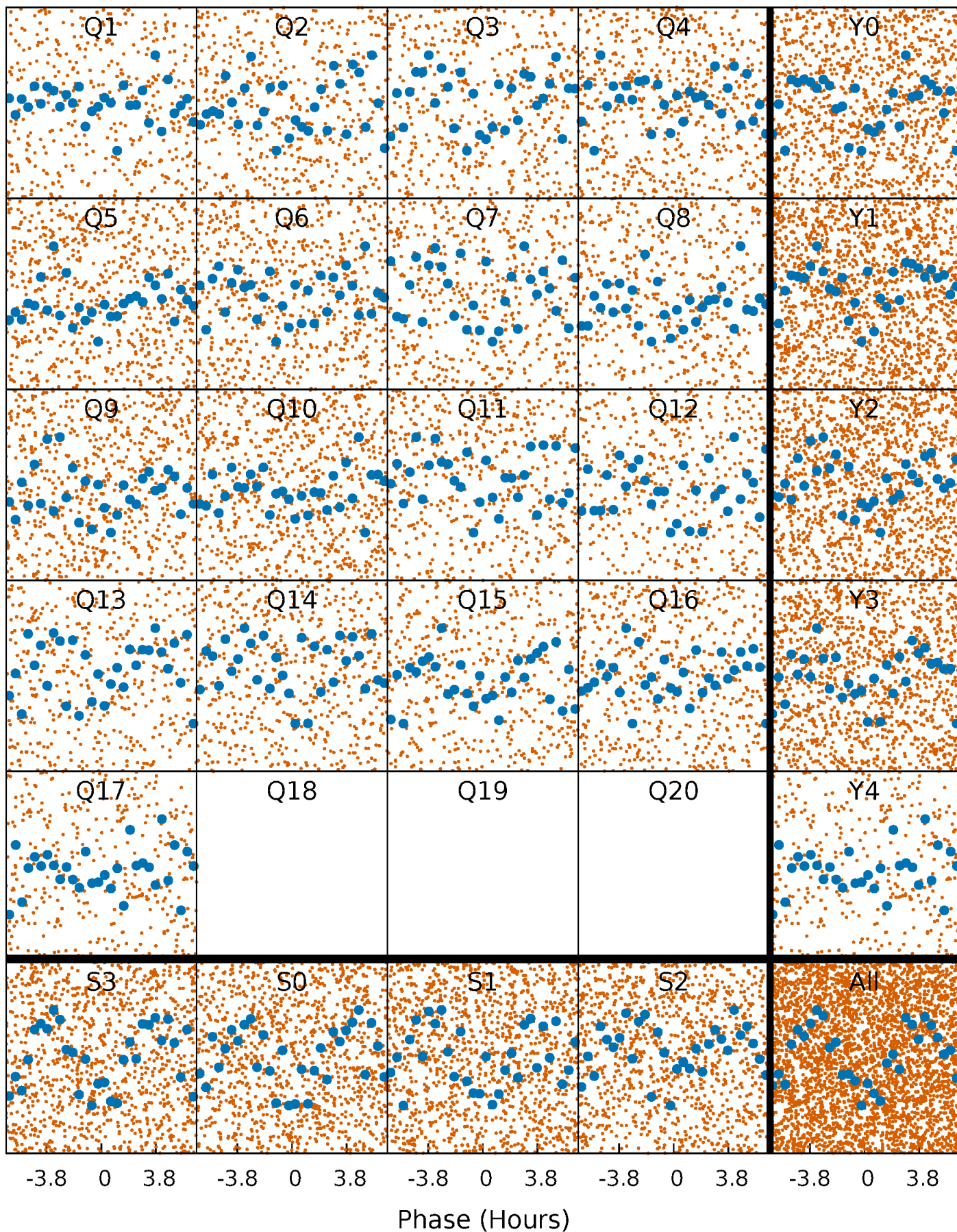


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



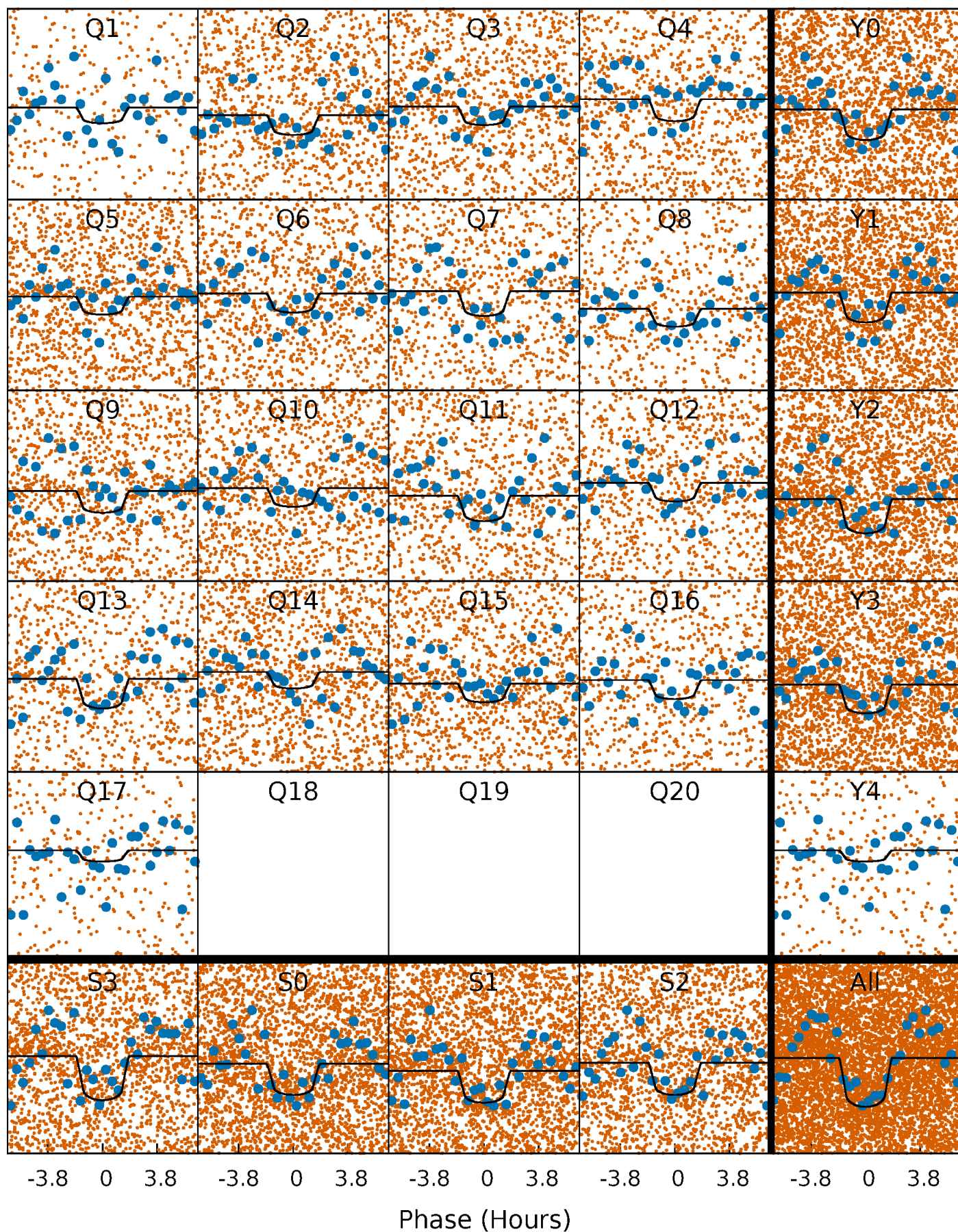
PDC Quarter-Phased Transit Curves

TCE 011569628-01 P= 0.920978 Days $T_0=132.424803$ (BKJD)



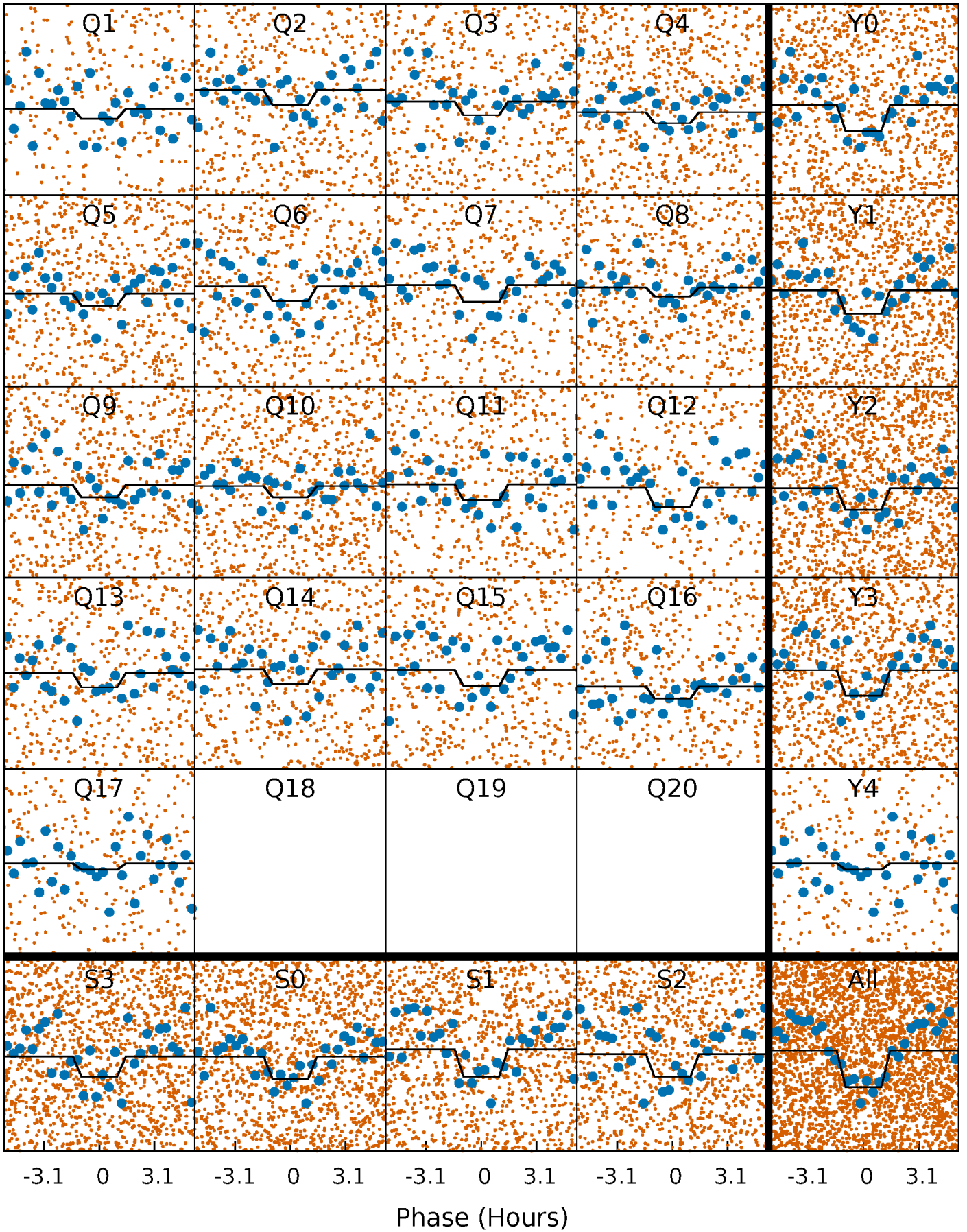
DV Quarter-Phased Transit Curves

TCE 011569628-01 P= 0.920978 Days $T_0=132.424803$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

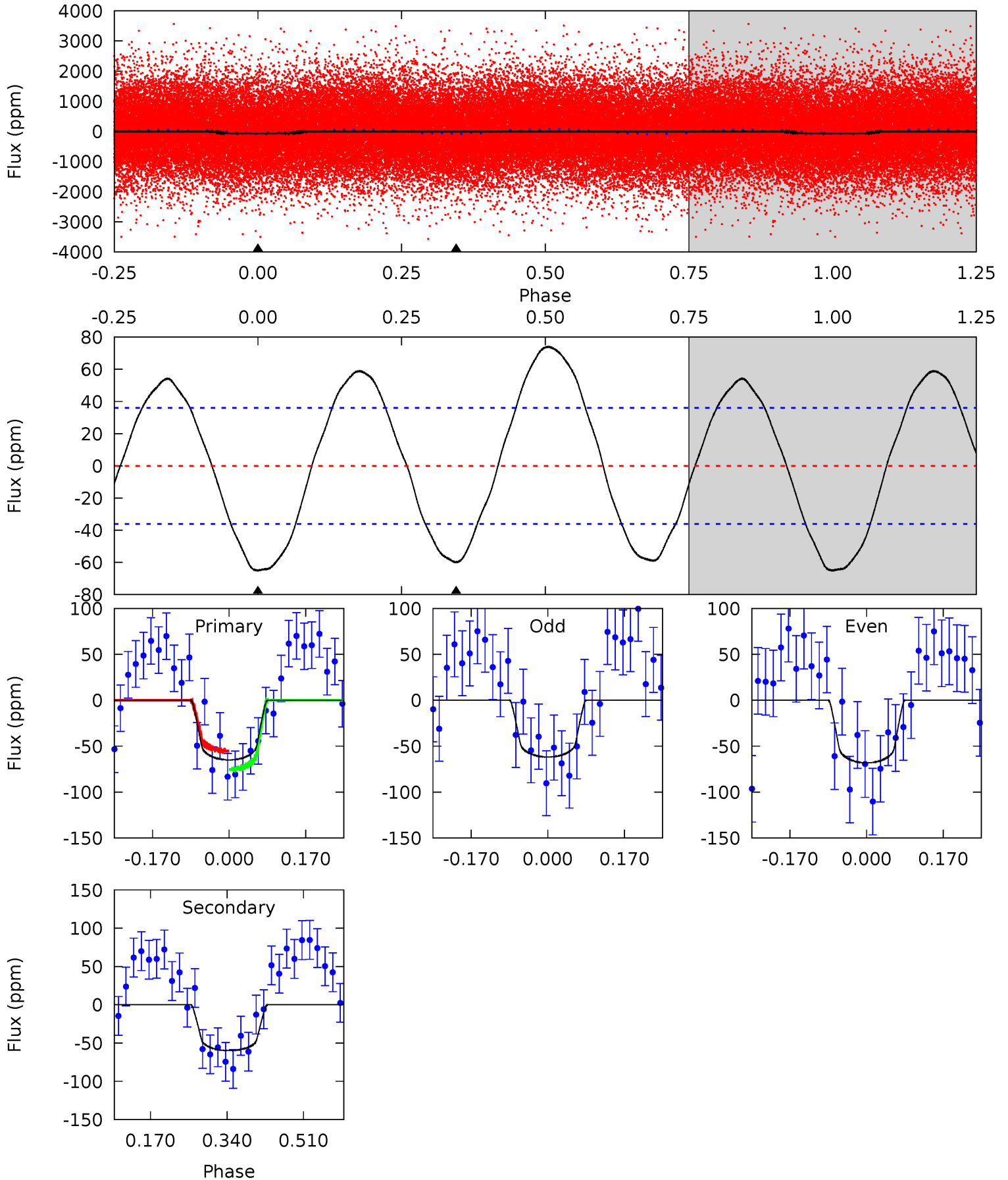
TCE 011569628-01 P= 0.920995 Days $T_0=132.417446$ (BKJD)



DV Model-Shift Uniqueness Test

011569628-01, P = 0.920978 Days, E = 131.503825 Days

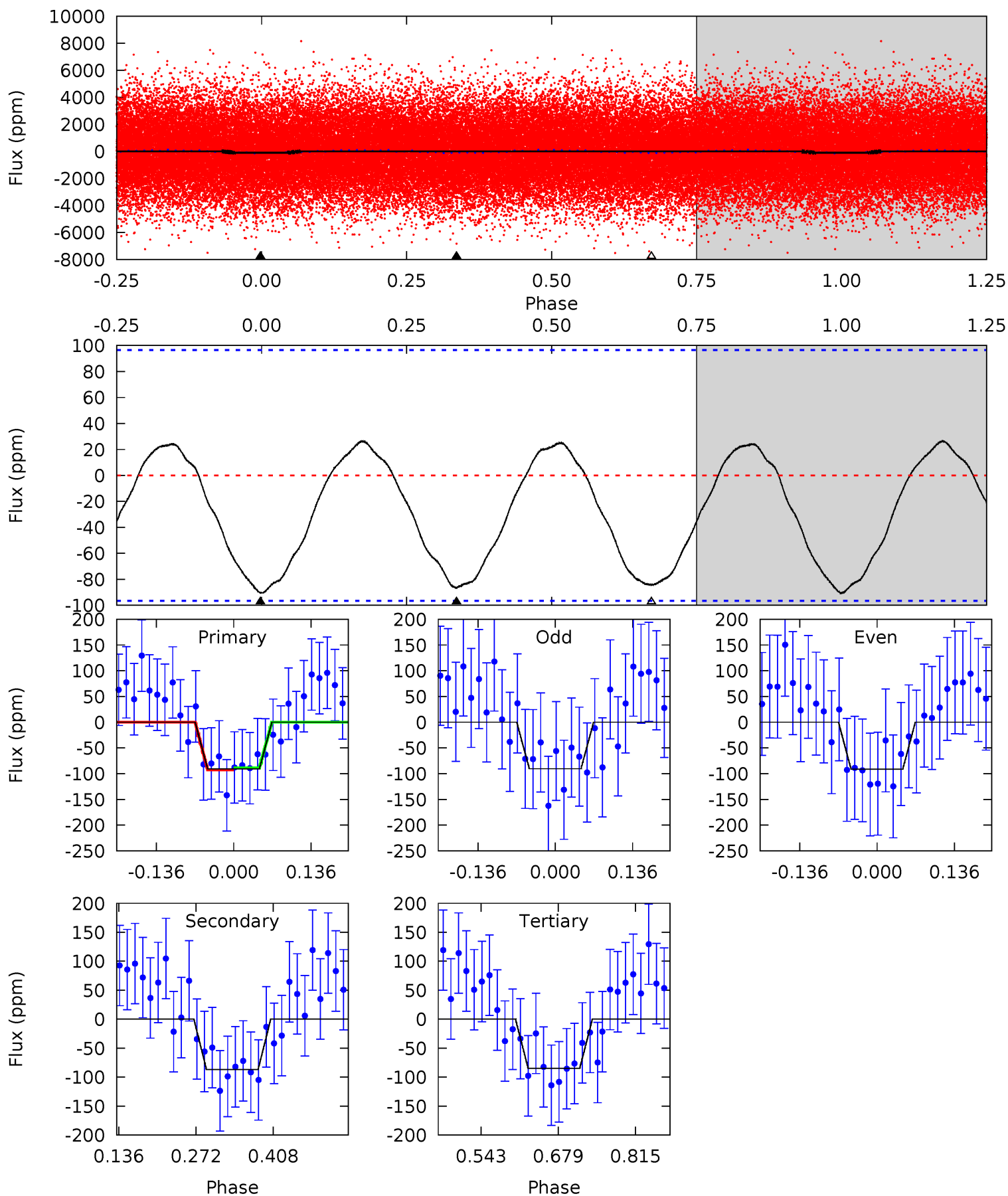
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.02	7.38	0	0	4.45	1.37	5.31	8.02	8.02	7.38	7.38	0.39	1.18	0.53	1.24



Alt Model-Shift Uniqueness Test

011569628-01, P = 0.920995 Days, E = 131.496451 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.24	4.05	3.95	0	4.50	1.49	1.87	0.29	4.24	0.10	4.05	0.02	1.00	0.23	0.09



Stellar Parameters For KIC 011569628

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6983^{+216}_{-312}	$4.099^{+0.240}_{-0.160}$	$-0.500^{+0.250}_{-0.300}$	$1.616^{+0.460}_{-0.460}$	$1.196^{+0.185}_{-0.166}$	$0.399^{+0.523}_{-0.184}$
	+3%/-4%	+6%/-4%	+50%/-60%	+28%/-28%	+15%/-14%	+131%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011569628-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-60 ± 8	$1.79^{+1.00}_{-0.96}$	3861^{+314}_{-323}	5832^{+3300}_{-1109}	$4.023^{+14.538}_{-2.376}$
Alt.	-87 ± 21	$1.66^{+1.08}_{-0.93}$	3841^{+302}_{-314}	6680^{+4580}_{-1593}	$6.543^{+28.338}_{-4.118}$

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

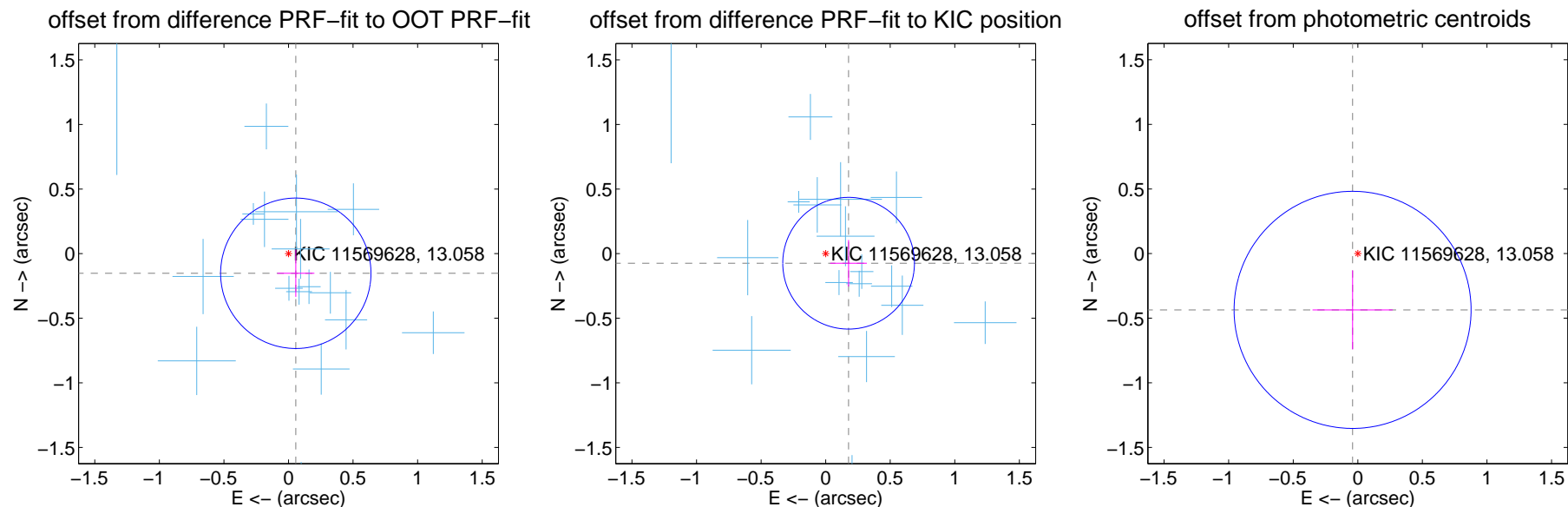
DV Centroid Data

Supplemental centroid analysis for 011569628-01. Kepler magnitude: 13.06. Transit SNR 13.19

There are 17 quarters with good PRF difference image offsets

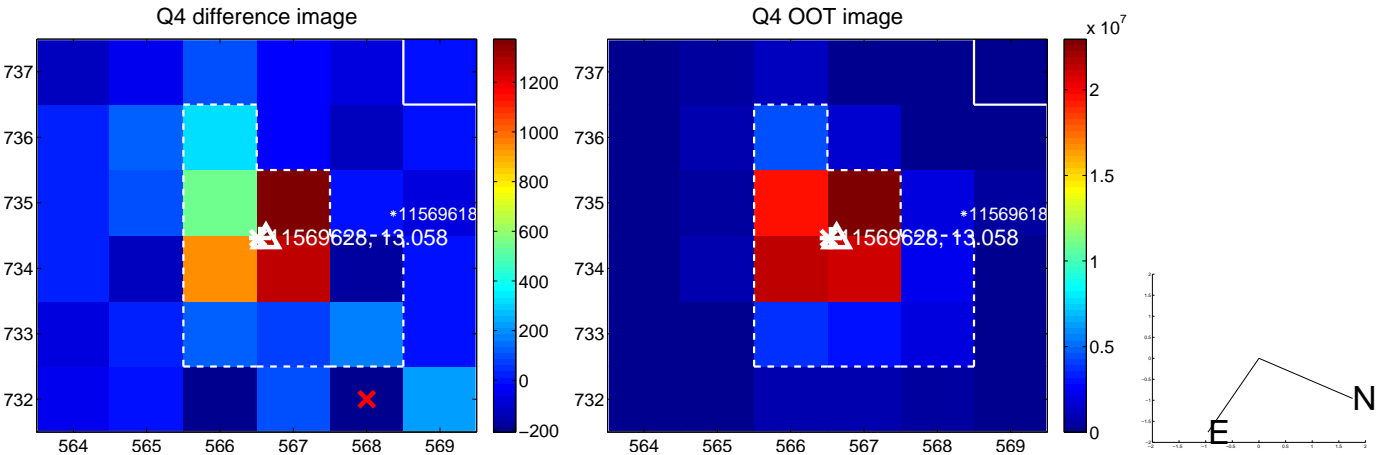
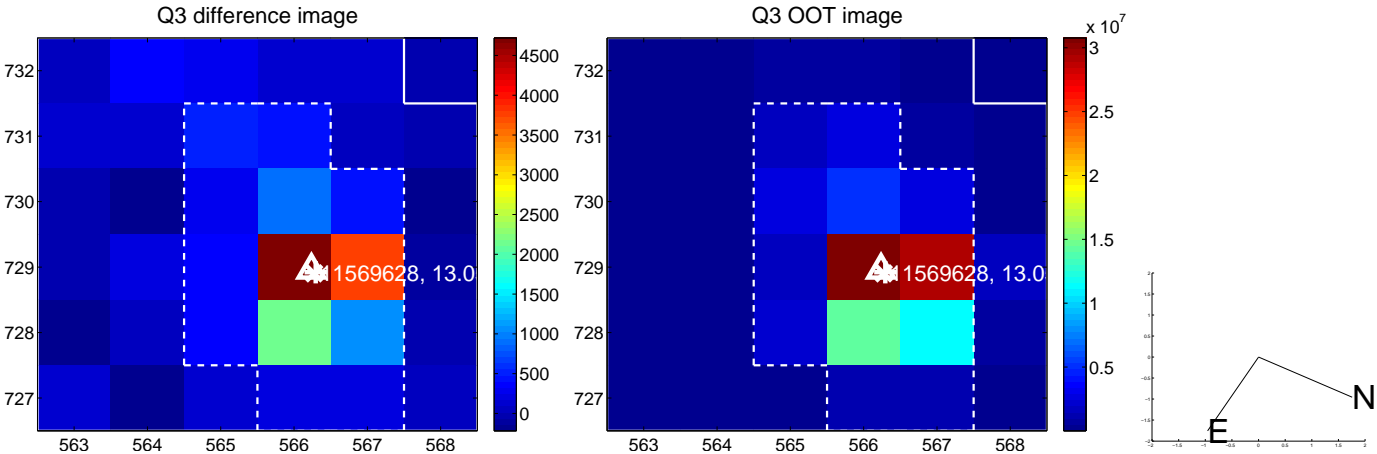
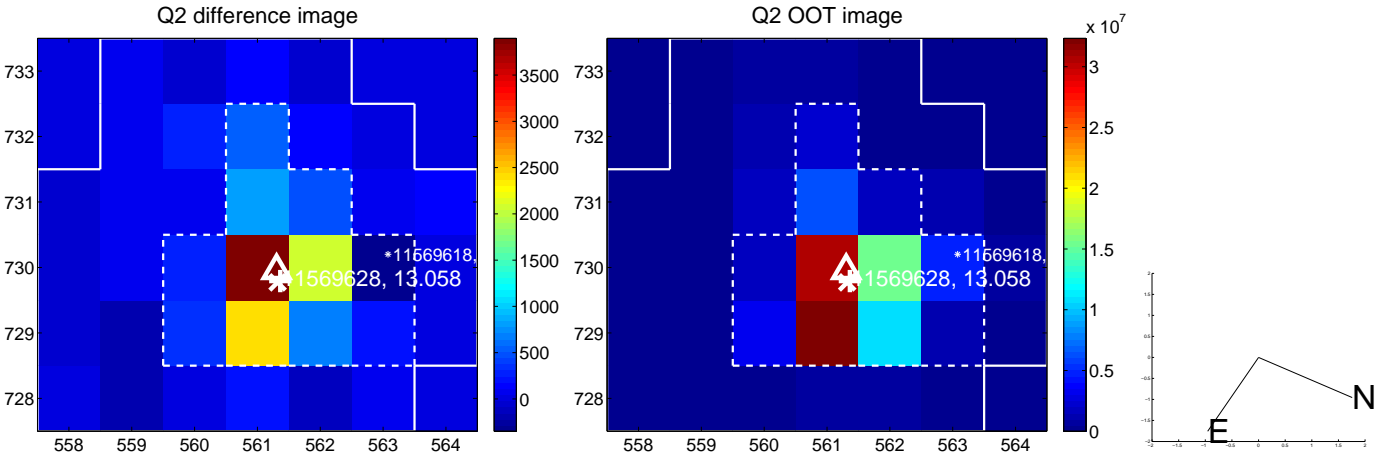
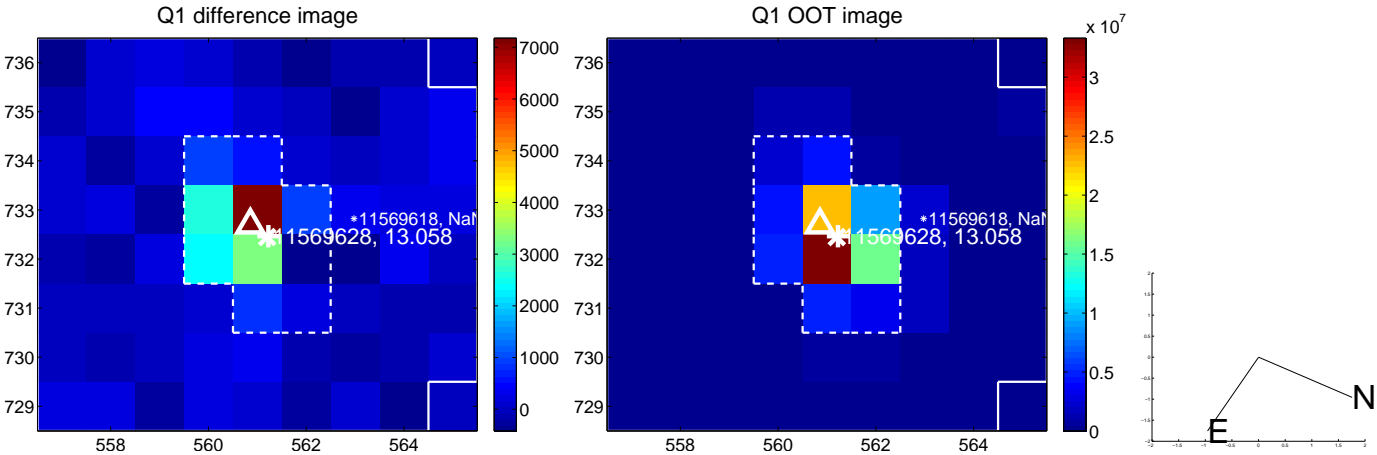
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.162 ± 0.194	0.84	-0.056 ± 0.144	-0.152 ± 0.182
PRF-fit source offset from KIC position	0.192 ± 0.170	1.13	-0.178 ± 0.142	-0.074 ± 0.180
photometric centroid source offset	0.44 ± 0.31	1.43	0.04 ± 0.31	-0.44 ± 0.31

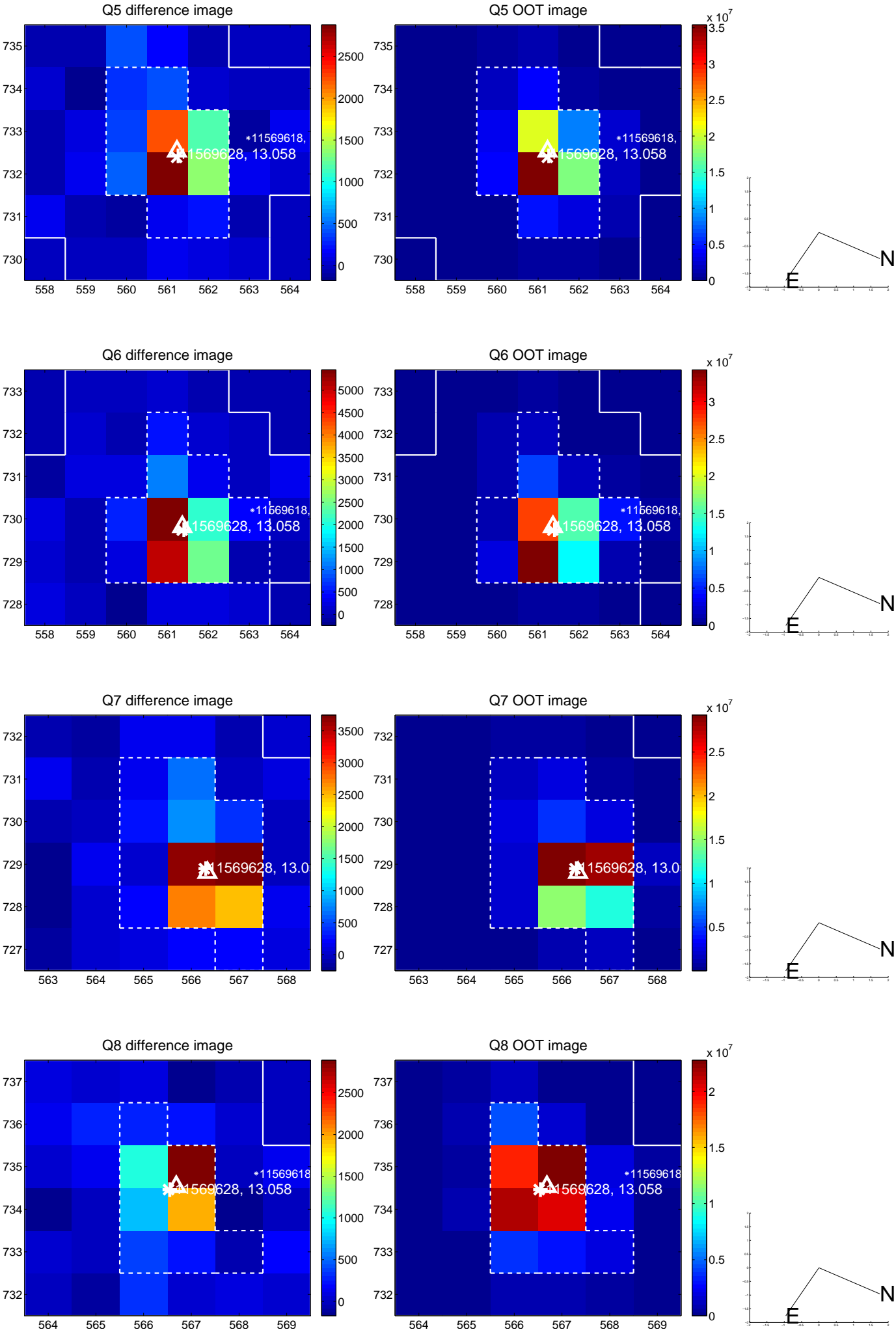


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

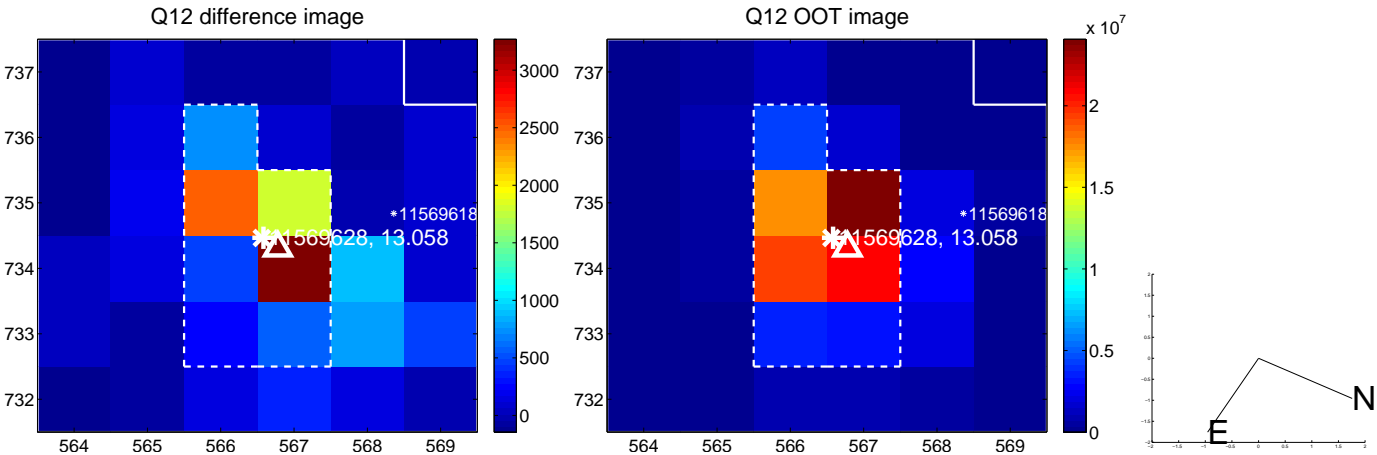
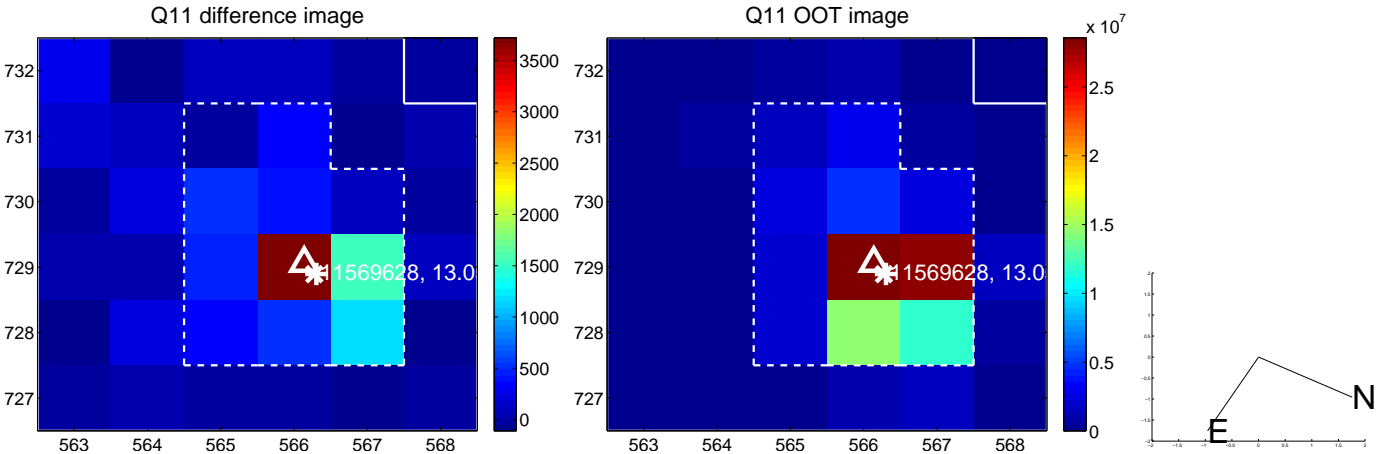
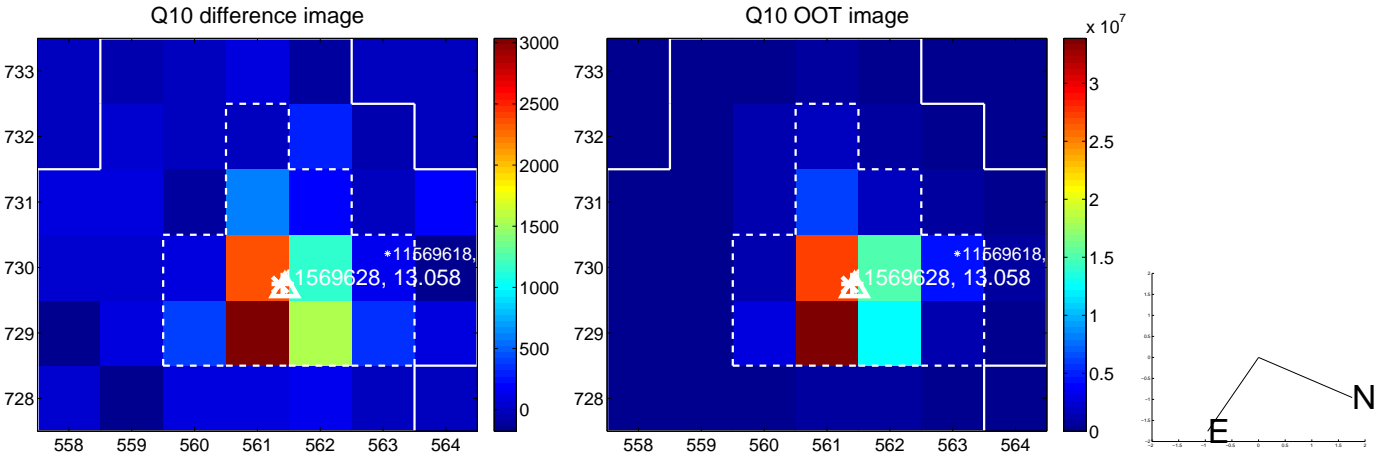
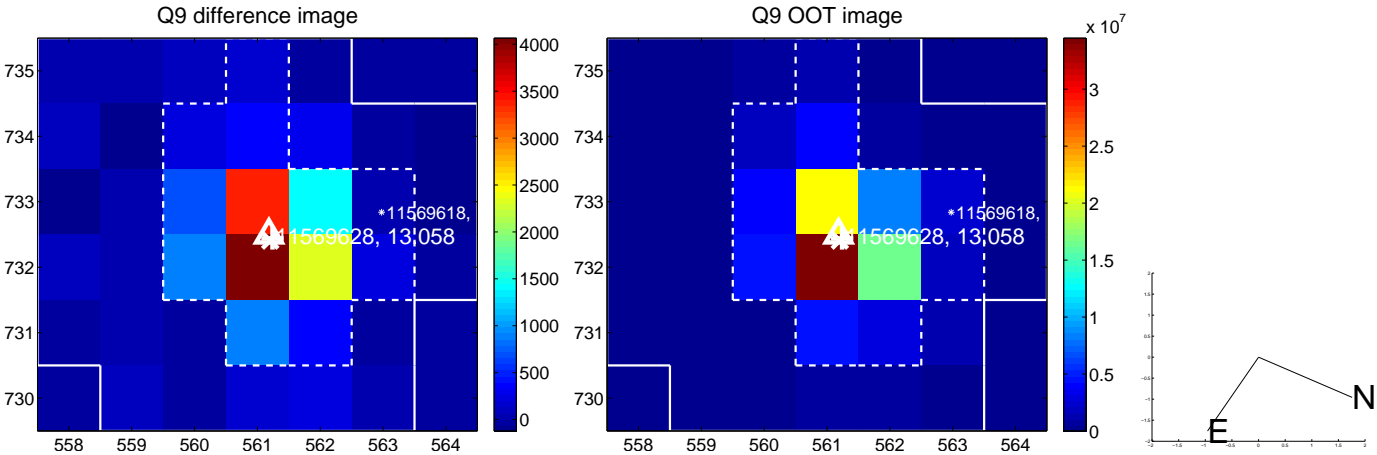
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



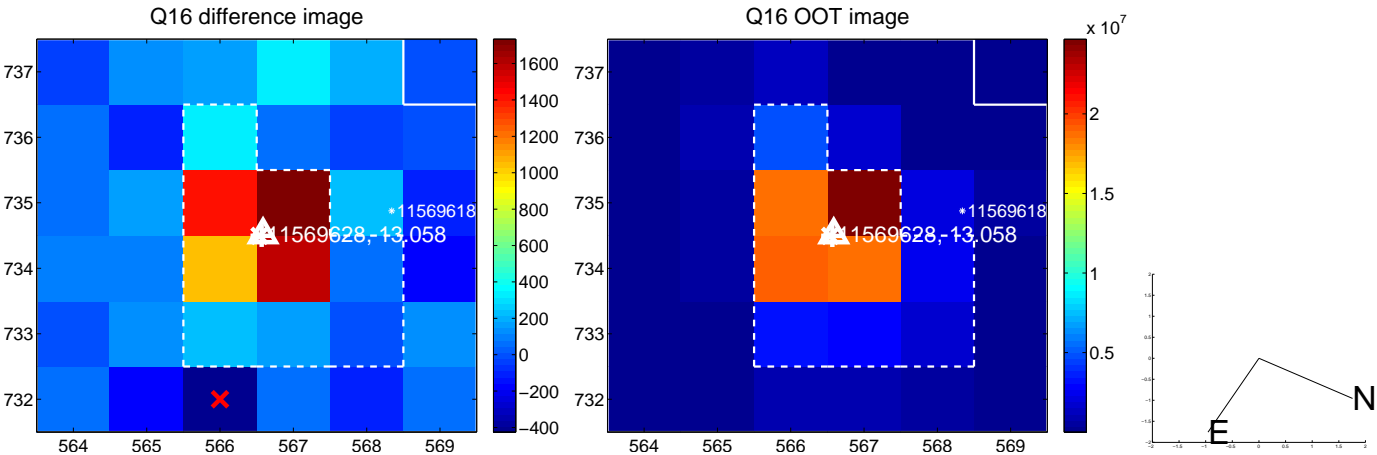
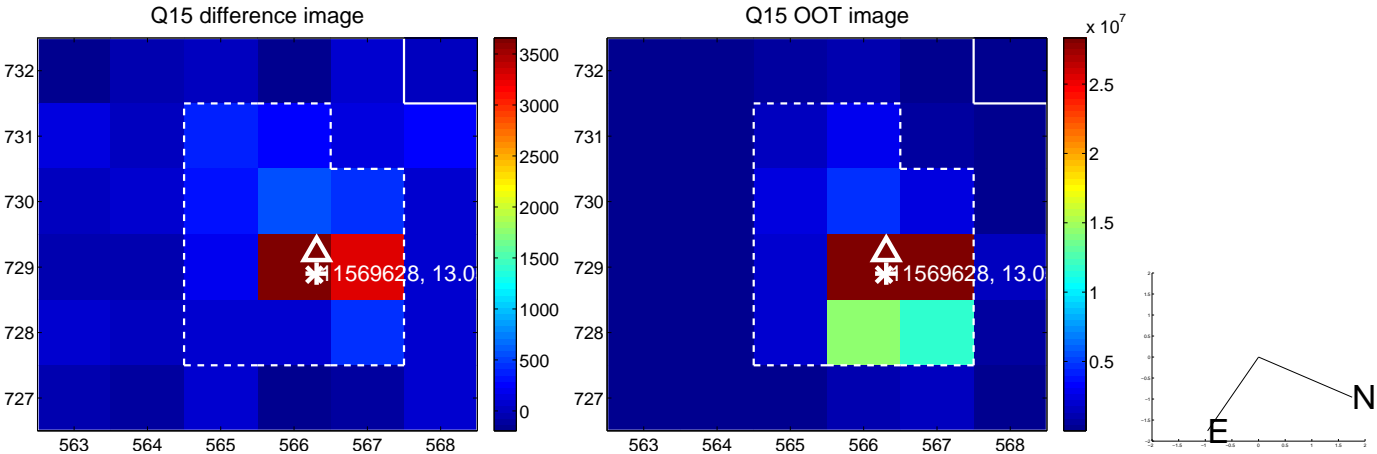
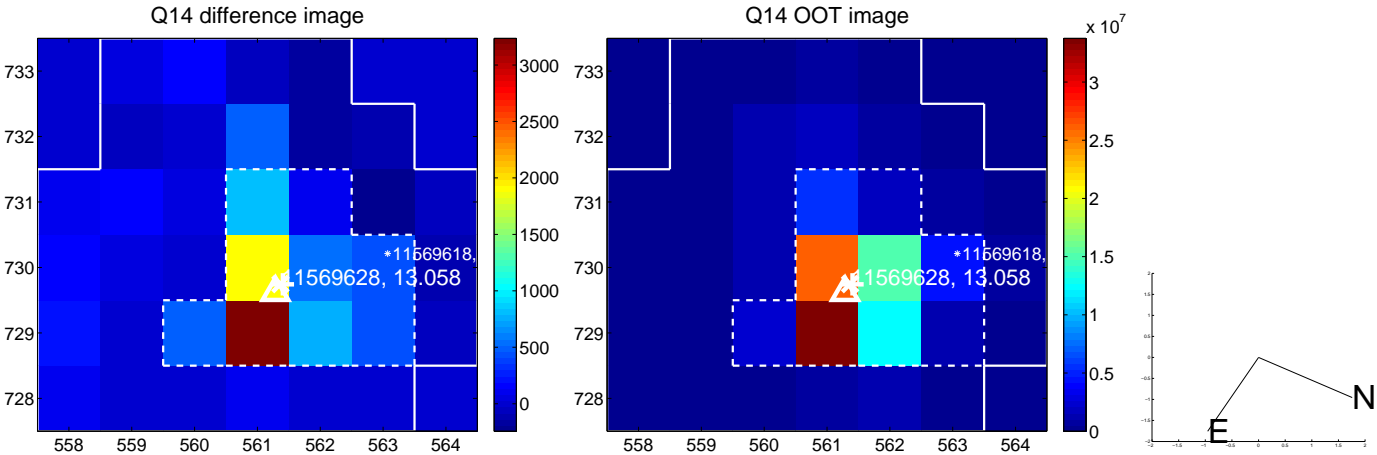
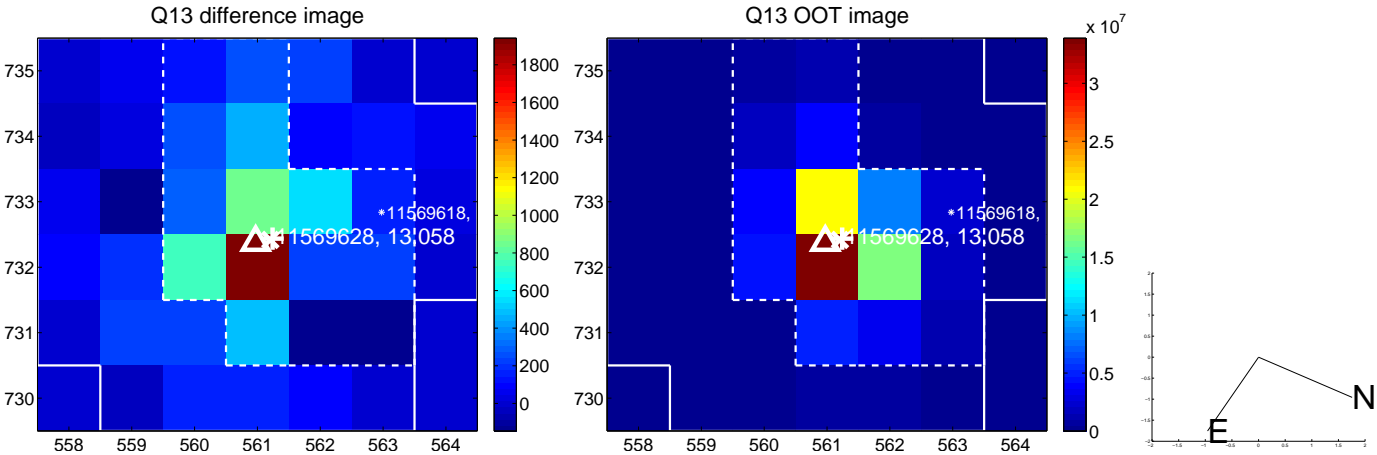
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



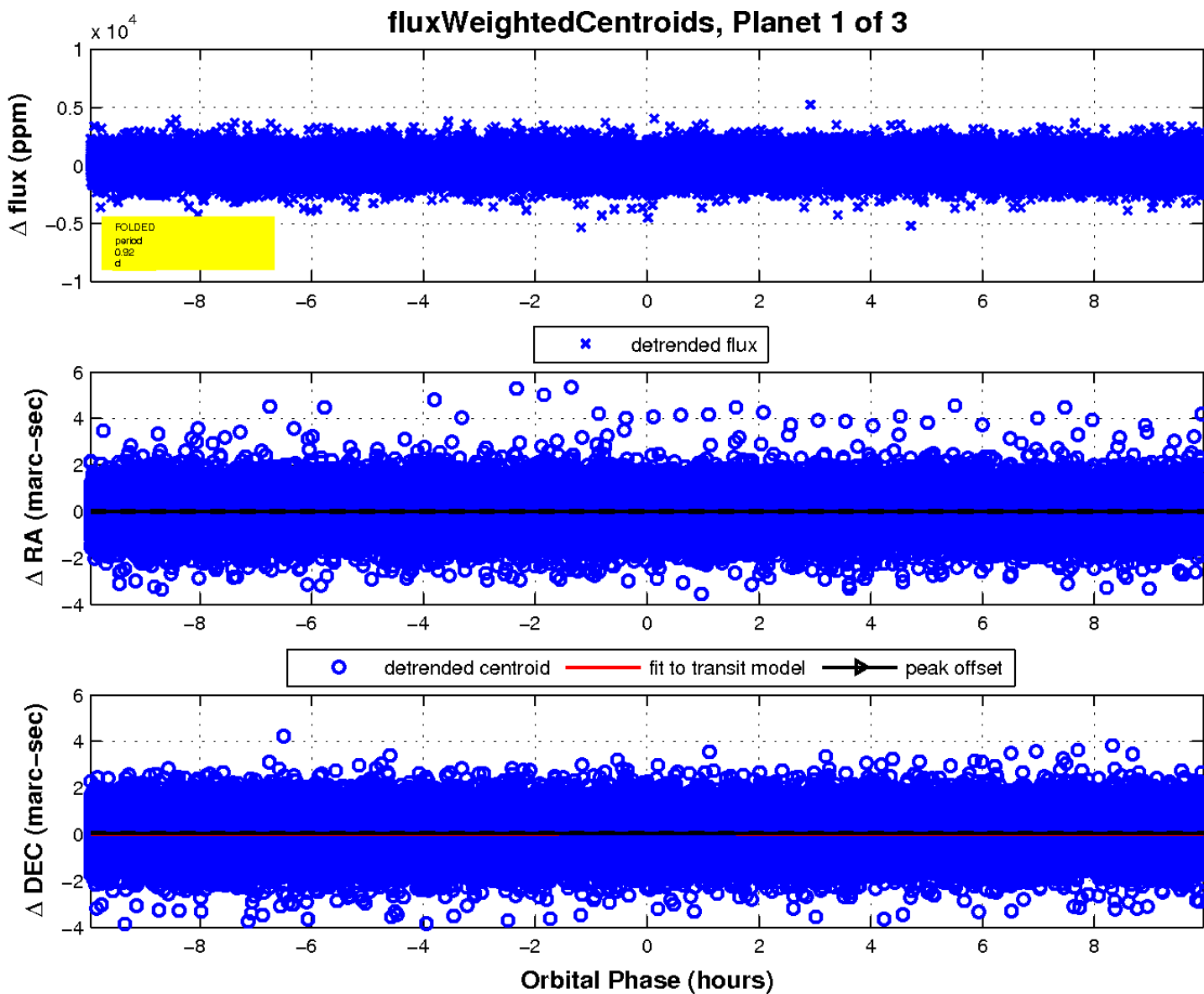
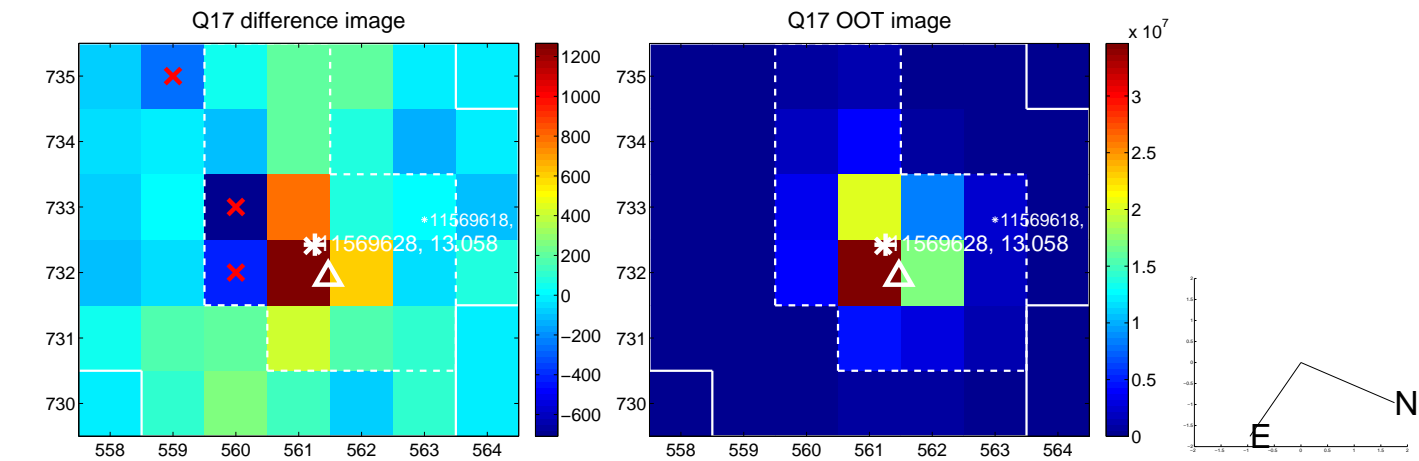
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



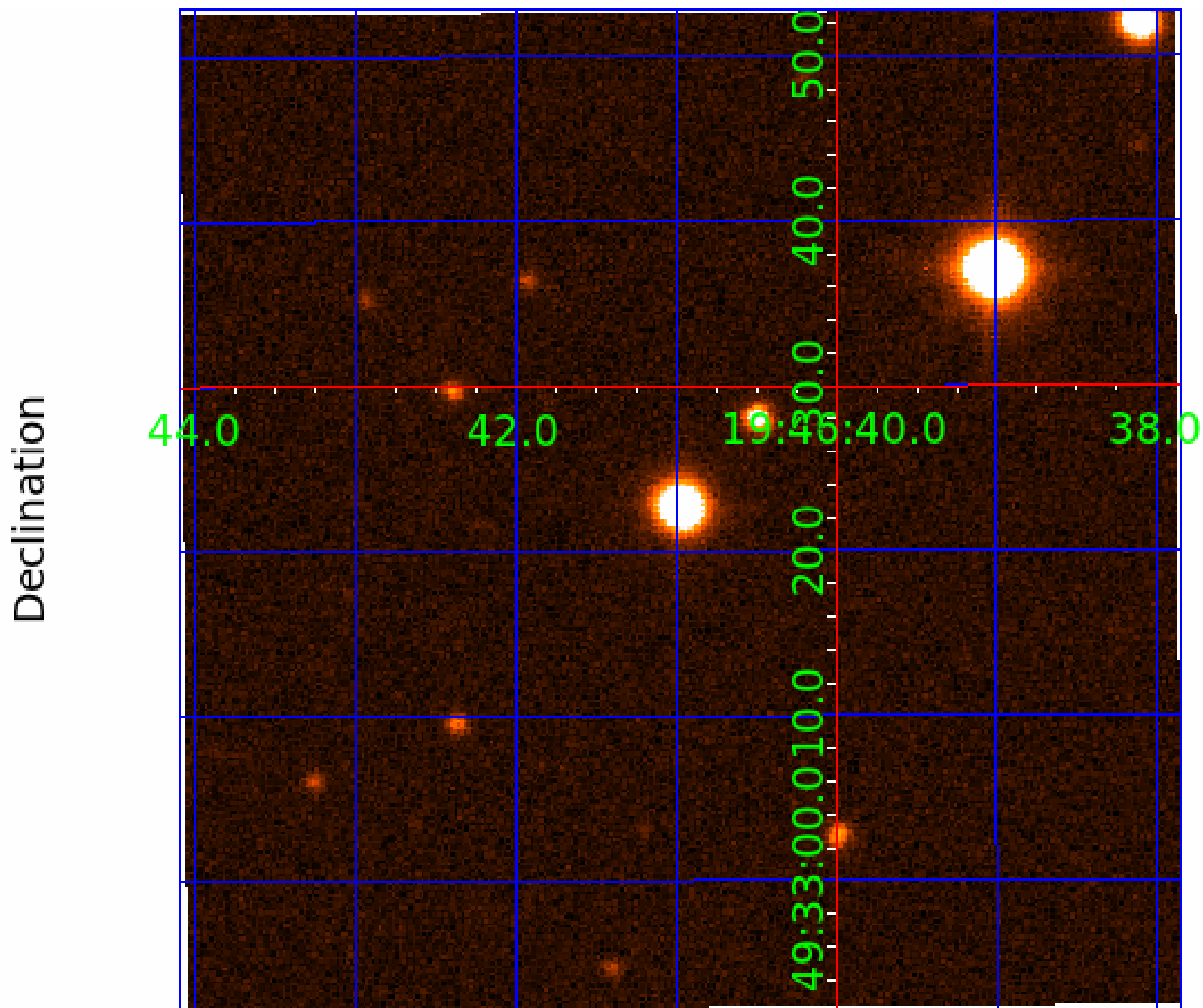
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011569628

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})
011569628-01	OBS	No	0.920978	132.424803	84.8	3.318	12.9	13.2	1.62	6983	1.72	14377.75
011569628-02	OBS	No	203.814627	140.008271	292.4	41.733	8.9	5.9	1.62	6983	2.92	10.74
011569628-03	OBS	No	0.678444	131.717677	88.9	7.315	9.0	13.6	1.62	6983	1.54	21610.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011569628-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
011569628-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS
011569628-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT

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

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

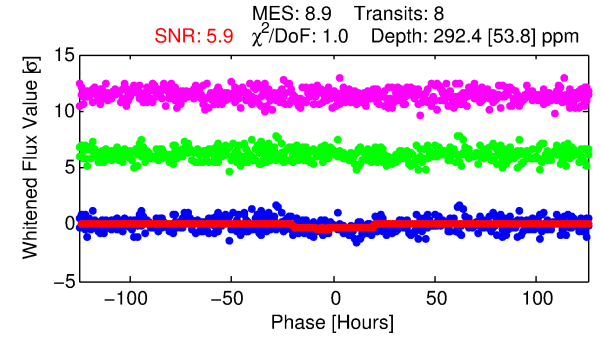
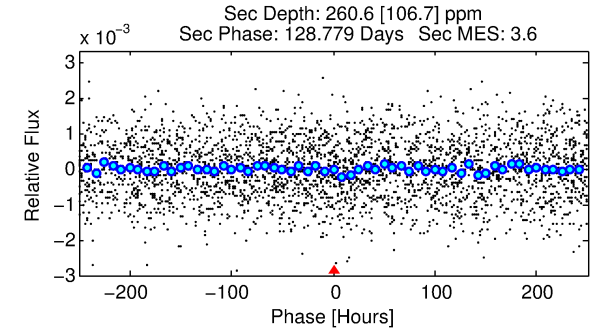
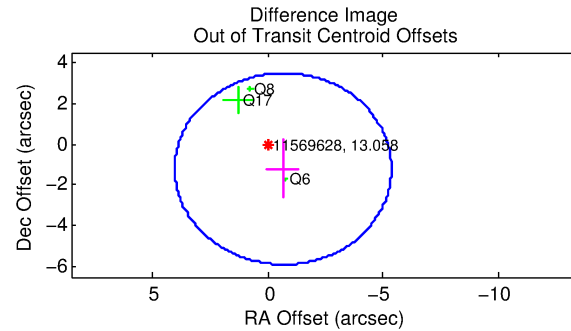
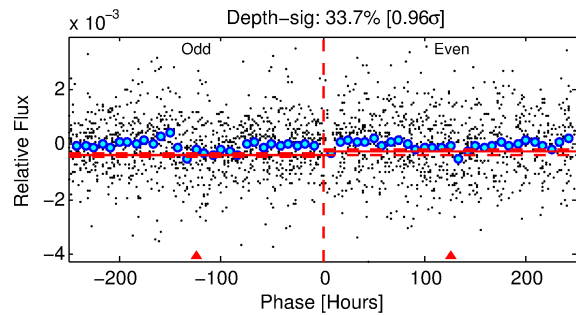
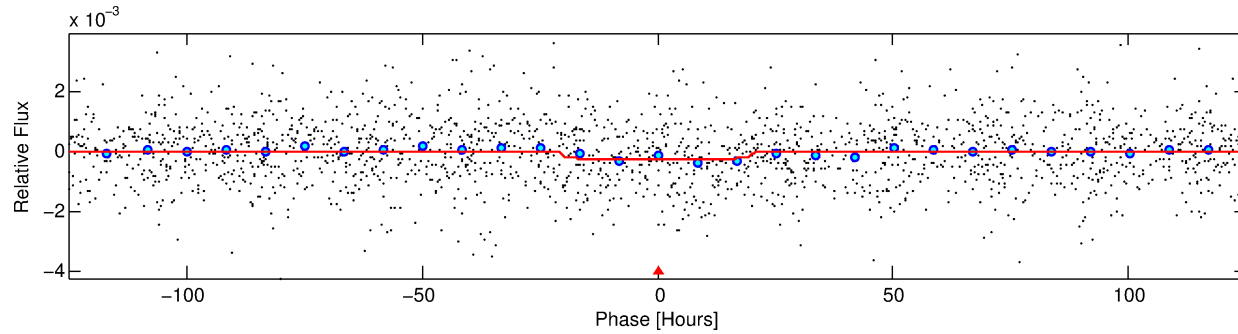
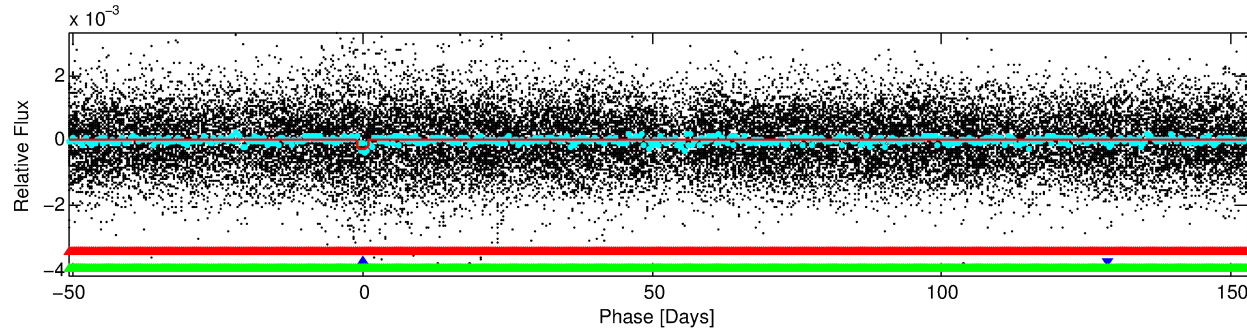
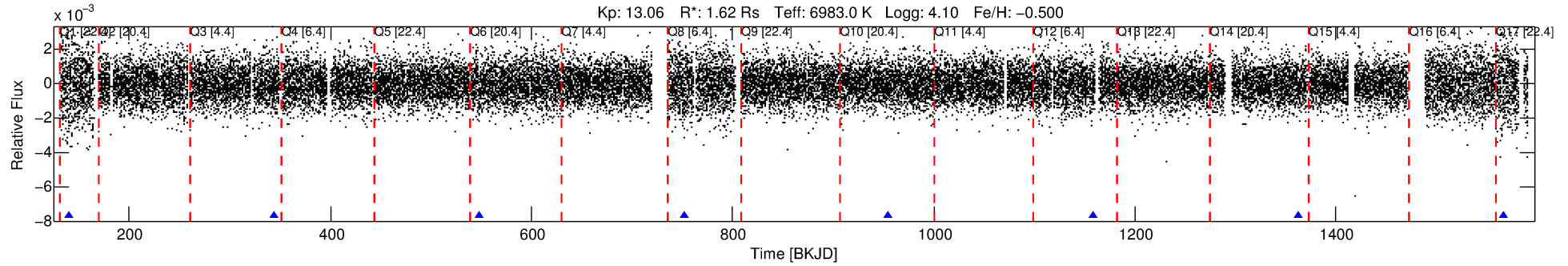
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011569628-02

No Significant Match Found

DV One-Page Summary

KIC: 11569628 Candidate: 2 of 3 Period: 203.815 d



DV Fit Results:

Period = 203.81463 [0.01765] d
Epoch = 140.0083 [0.0682] BKJD
Rp/R* = 0.0166 [0.0057]
a/R* = 29.60 [56.56]
b = 0.64 [1.79]
Seff = 10.74 [4.85]
Teq = 462 [52] K
Rp = 2.92 [1.30] Re
a = 0.7197 [0.1903] AU
Ag = 8703.02 [7814.44] [1.11σ]
Teffp = 6894 [1407] K [4.57σ]

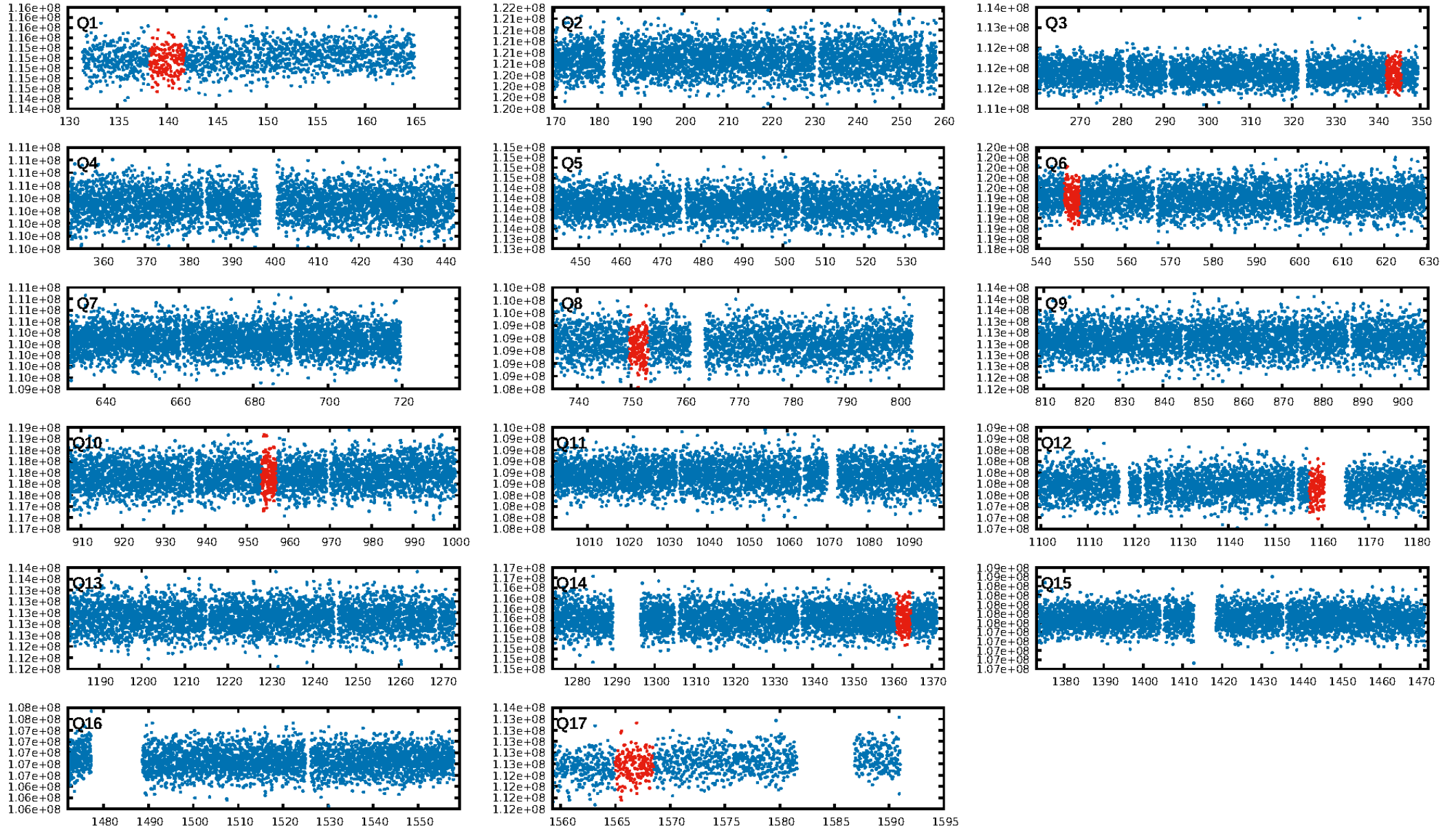
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [116.31σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -10.72
Centroid-sig: 59.0%
Centroid-so: 0.408 arcsec [0.96σ]
OotOffset-rm: 1.379 arcsec [0.88σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-rm: 1.341 arcsec [0.89σ]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.00 [0/7]

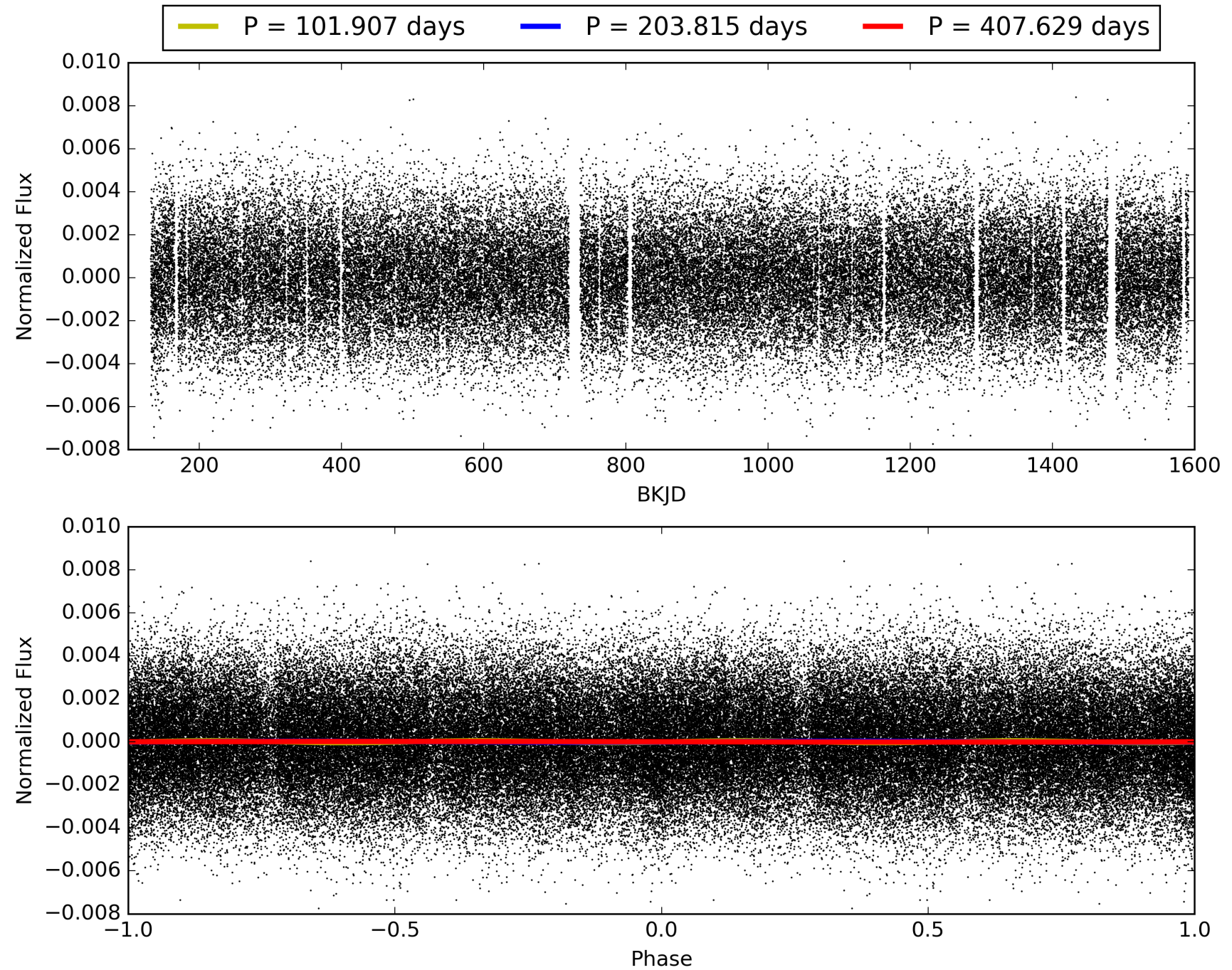
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:59:14 Z

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

TCE 011569628-02, PDC Light Curves

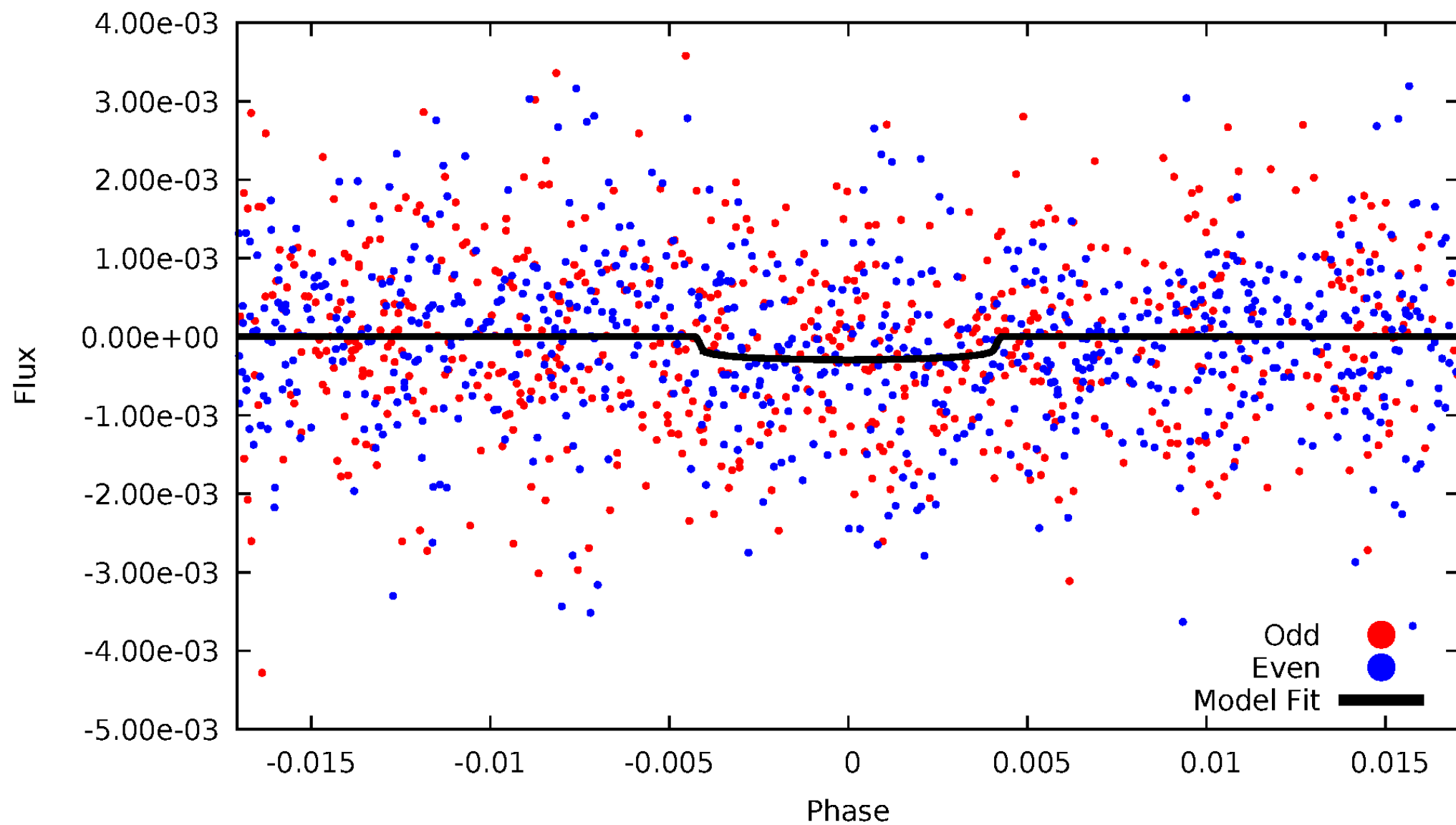


TCE 011569628-02



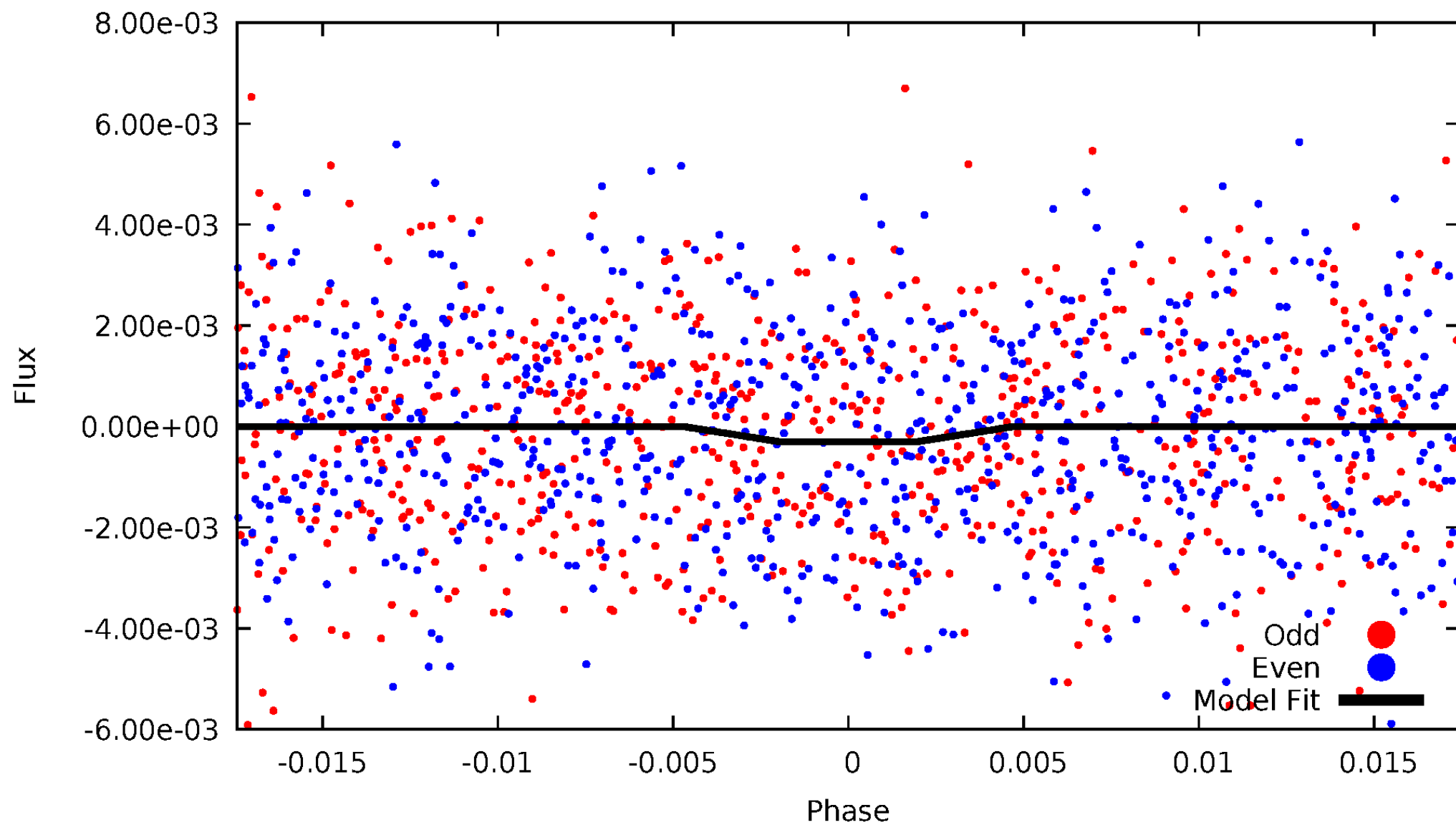
DV Odd/Even

TCE 011569628-02



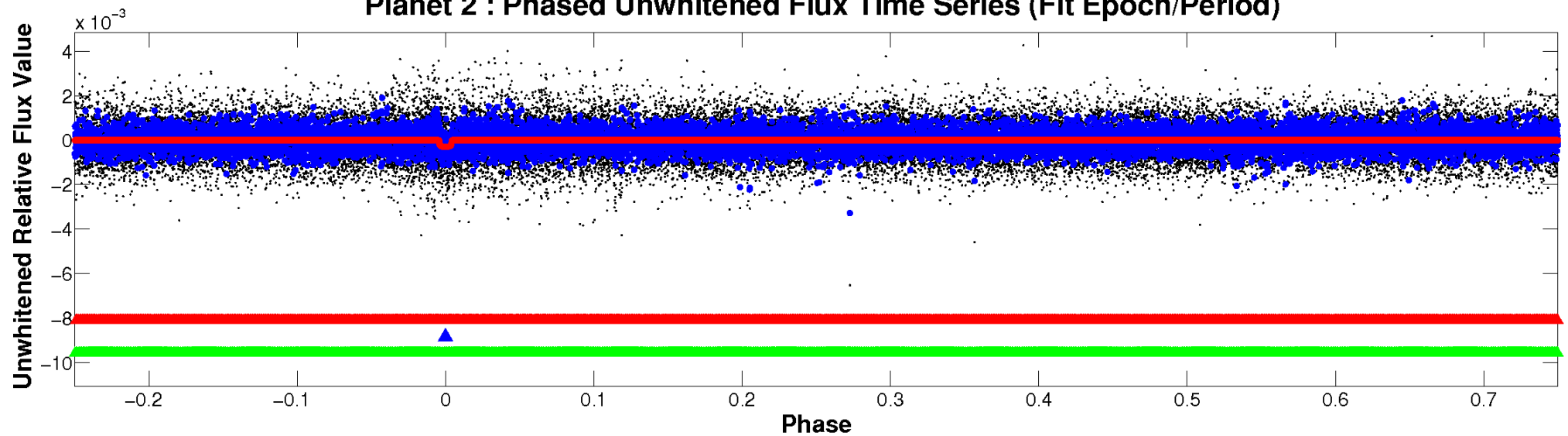
ALT Odd/Even

TCE 011569628-02

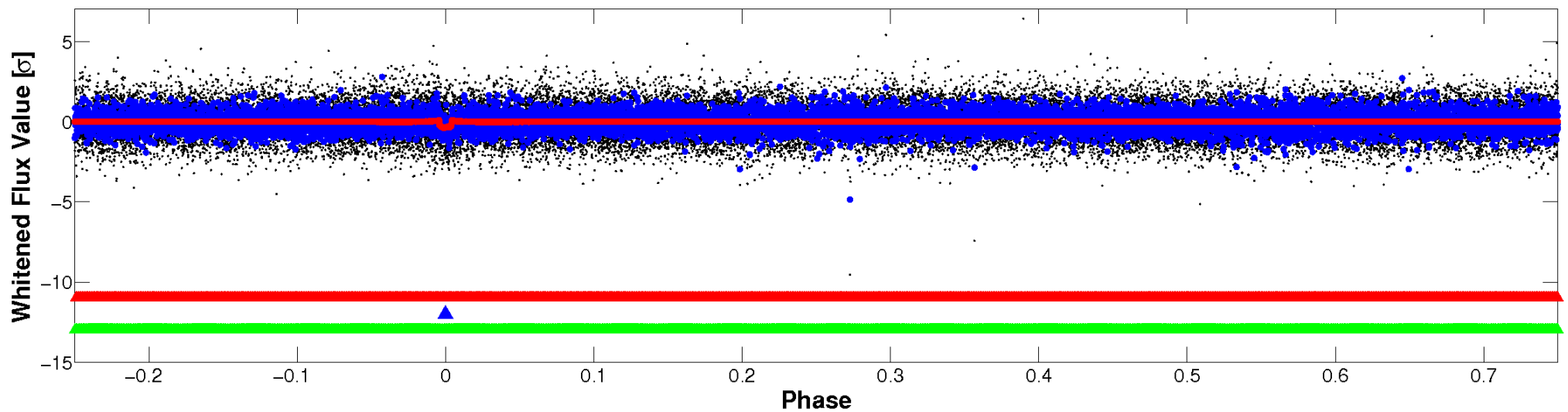


Non-Whitened Vs. Whitened Light Curve

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

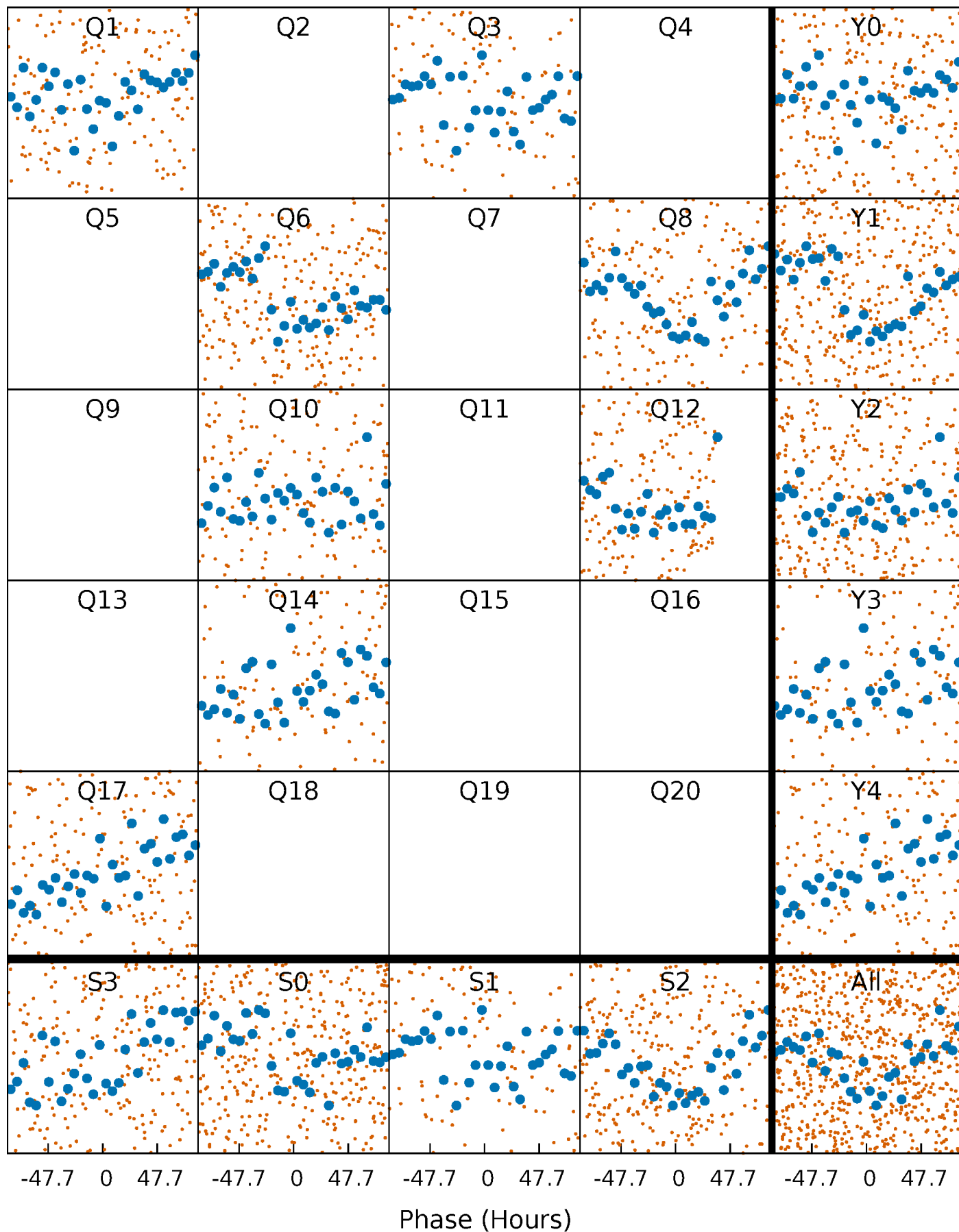


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



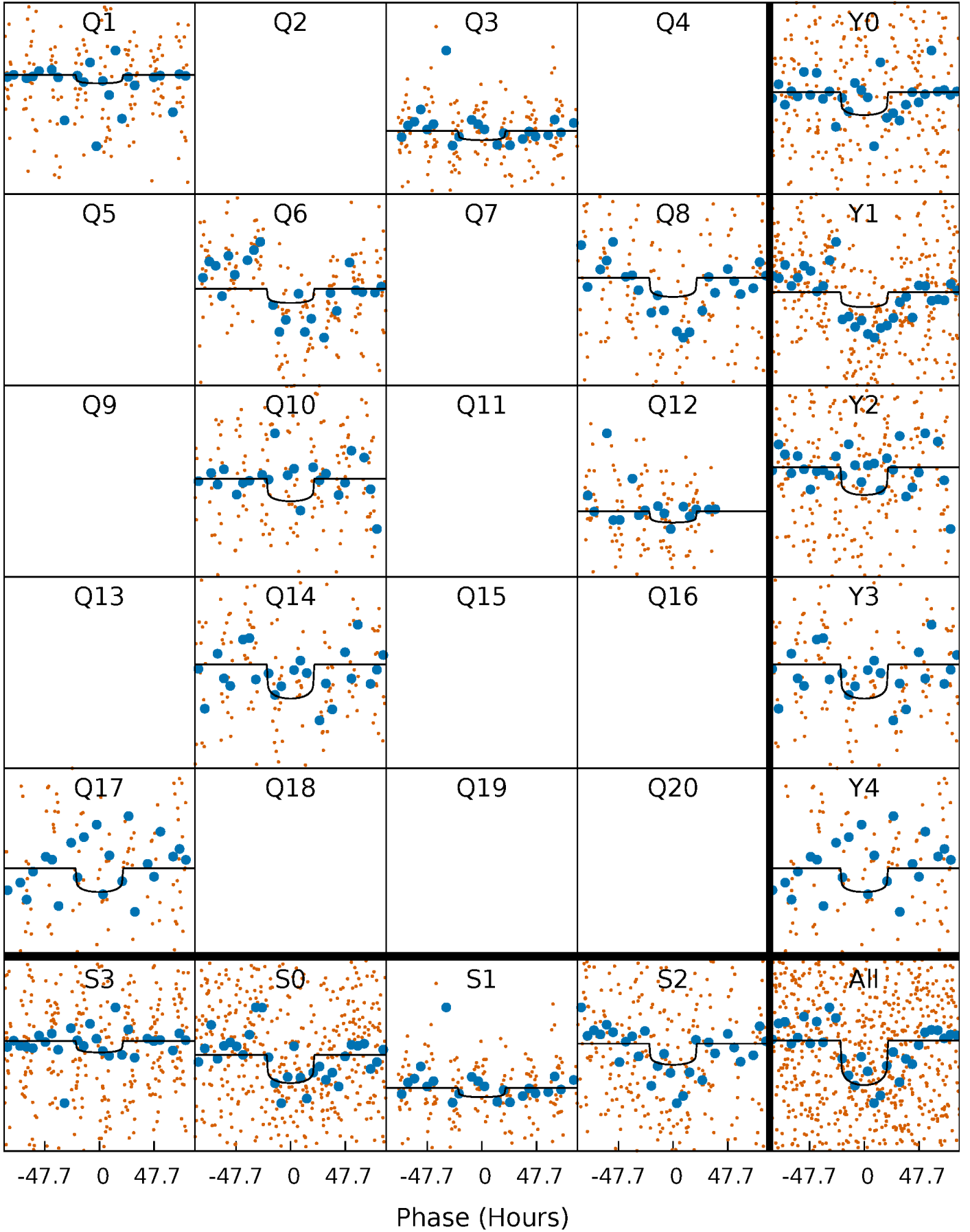
PDC Quarter-Phased Transit Curves

TCE 011569628-02 P=203.814627 Days $T_0=140.008271$ (BKJD)



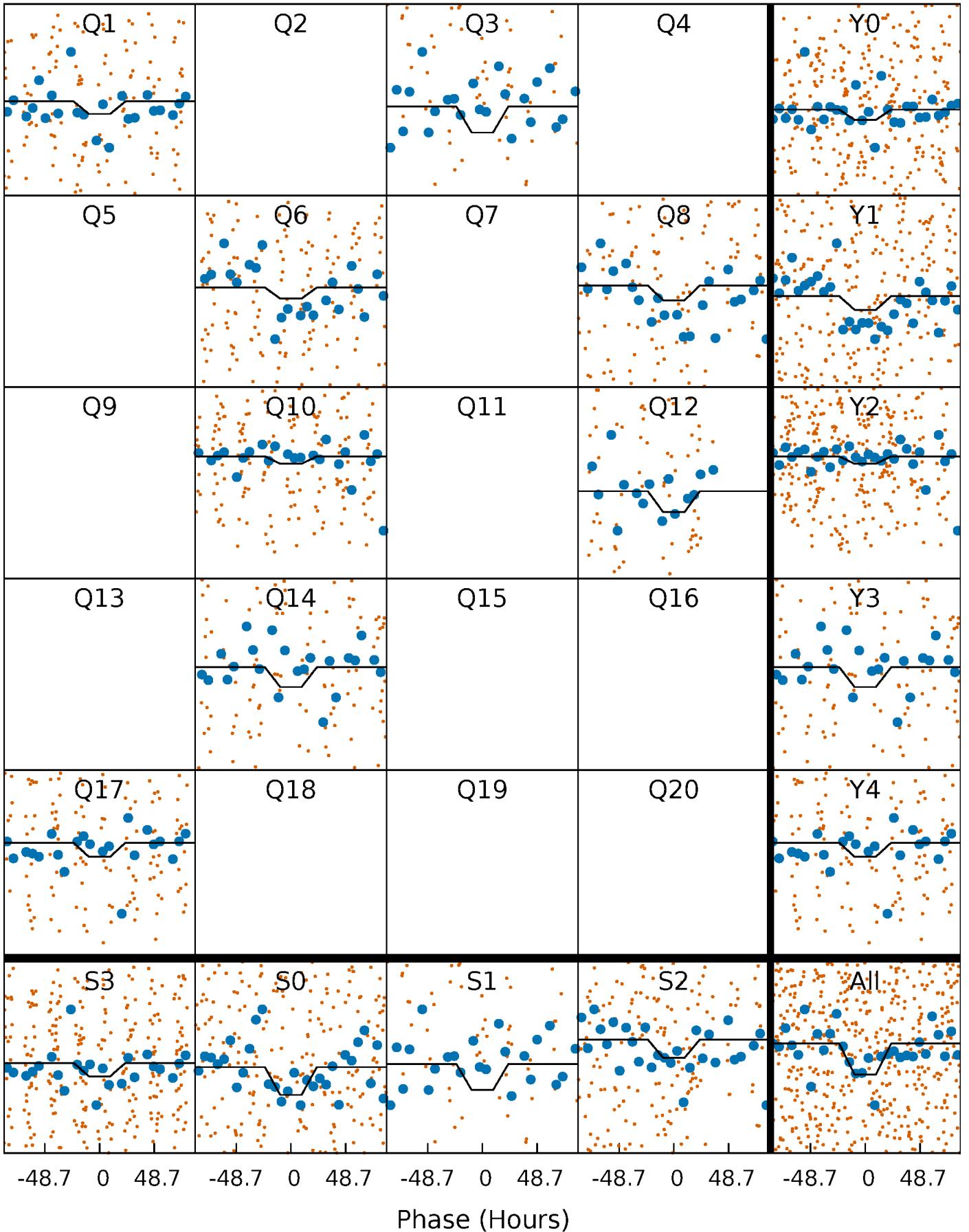
DV Quarter-Phased Transit Curves

TCE 011569628-02 $P=203.814627$ Days $T_0=140.008271$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

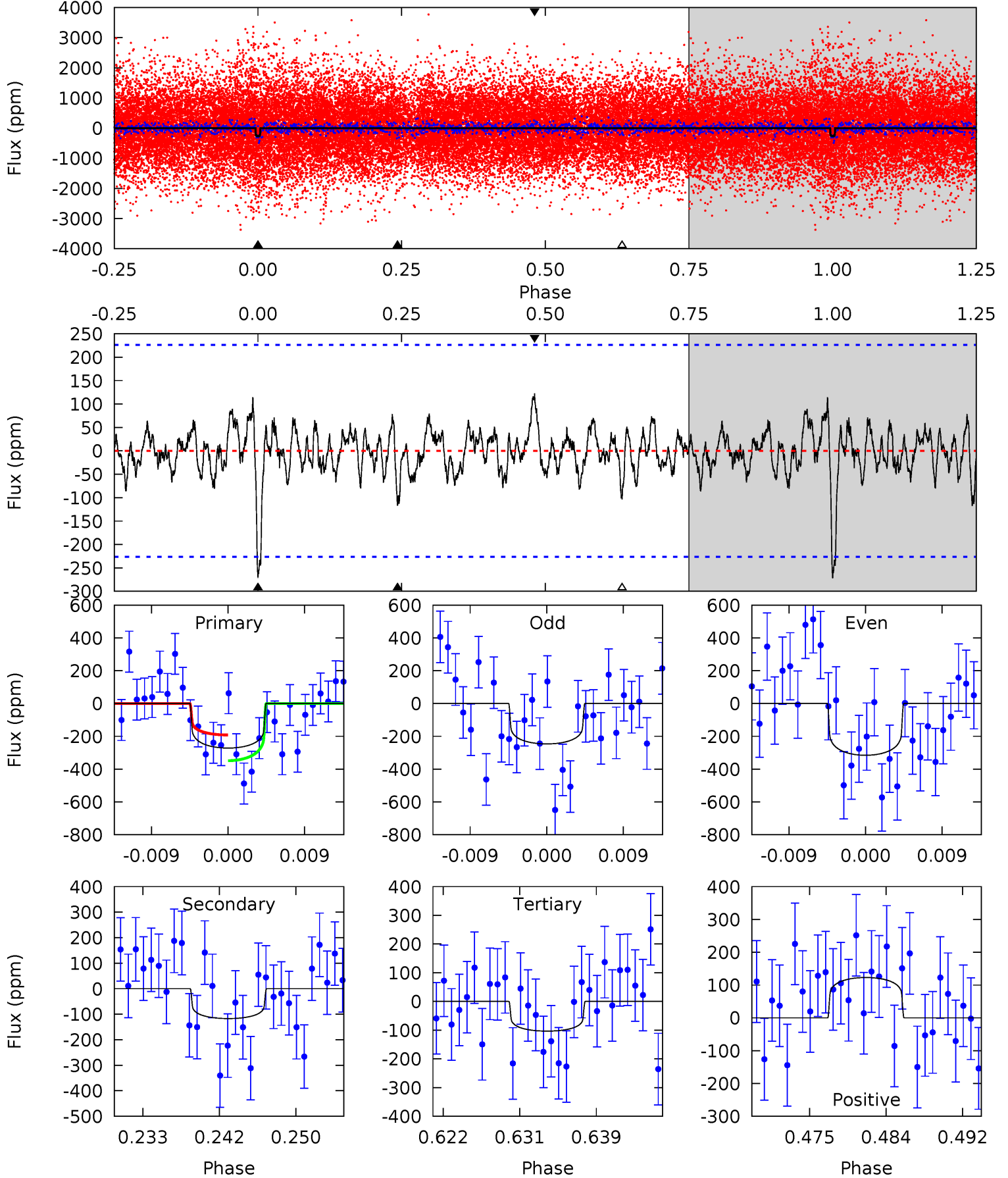
TCE 011569628-02 P=203.790705 Days $T_0=140.064080$ (BKJD)



DV Model-Shift Uniqueness Test

011569628-02, P = 203.814627 Days, E = 140.008271 Days

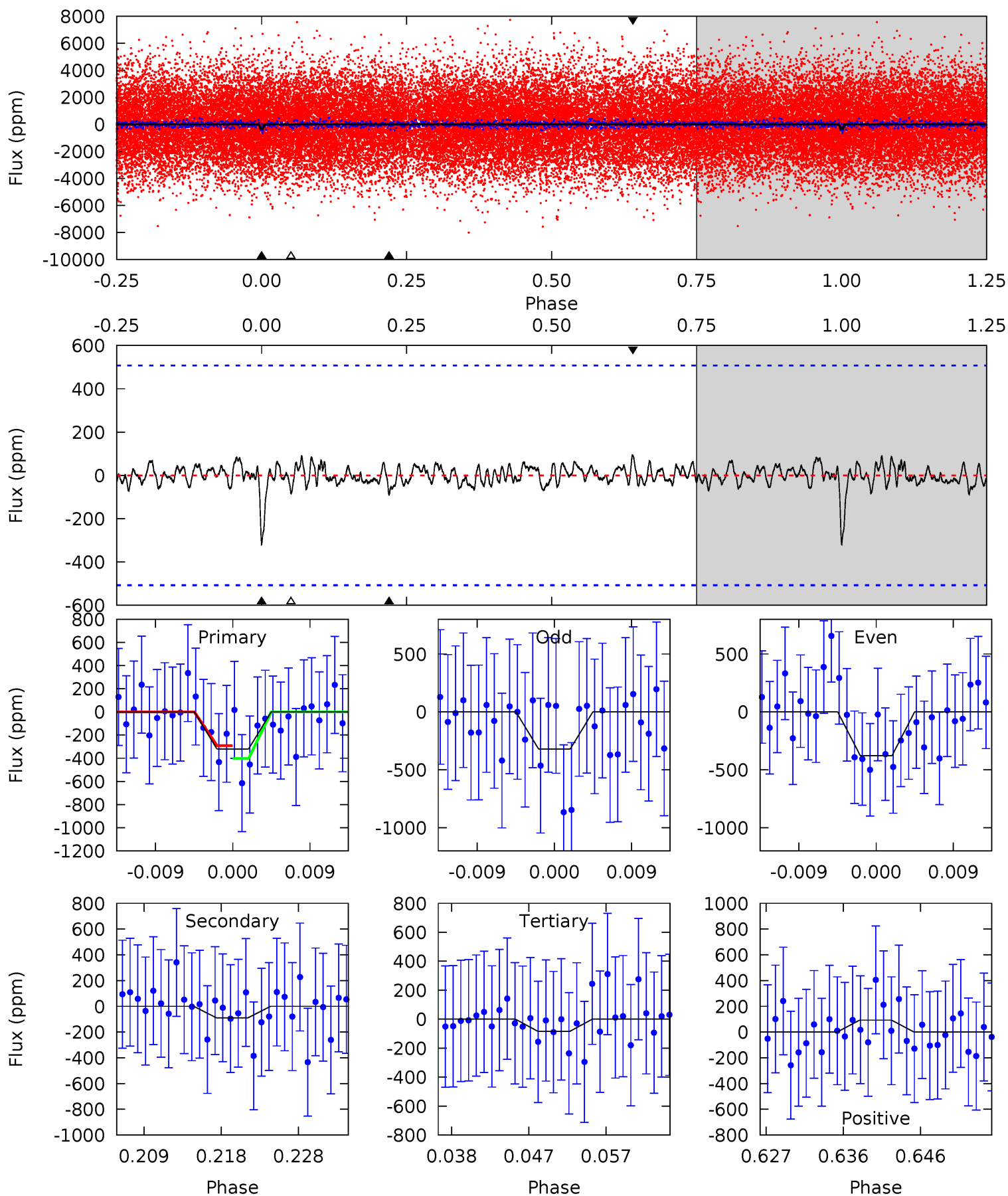
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.07	2.62	2.31	2.75	5.05	2.63	0.83	3.76	3.32	0.31	-0.13	0.78	1.66	0.31	1.75



Alt Model-Shift Uniqueness Test

011569628-02, P = 203.790705 Days, E = 140.064080 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.17	0.89	0.84	0.92	5.04	2.59	0.33	2.33	2.25	0.05	-0.04	0.29	3.31	0.23	0.56



Stellar Parameters For KIC 011569628

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6983^{+216}_{-312}	$4.099^{+0.240}_{-0.160}$	$-0.500^{+0.250}_{-0.300}$	$1.616^{+0.460}_{-0.460}$	$1.196^{+0.185}_{-0.166}$	$0.399^{+0.523}_{-0.184}$
	+3%/-4%	+6%/-4%	+50%/-60%	+28%/-28%	+15%/-14%	+131%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011569628-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-117 ± 45	$2.86^{+1.16}_{-1.03}$	638^{+52}_{-52}	5471^{+1509}_{-786}	3712^{+6540}_{-1928}
Alt.	-89 ± 101	$2.94^{+1.14}_{-0.97}$	638^{+52}_{-50}	5051^{+1679}_{-8494}	2473^{+5470}_{-2802}

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 $A_{obs} \gg 1.0$

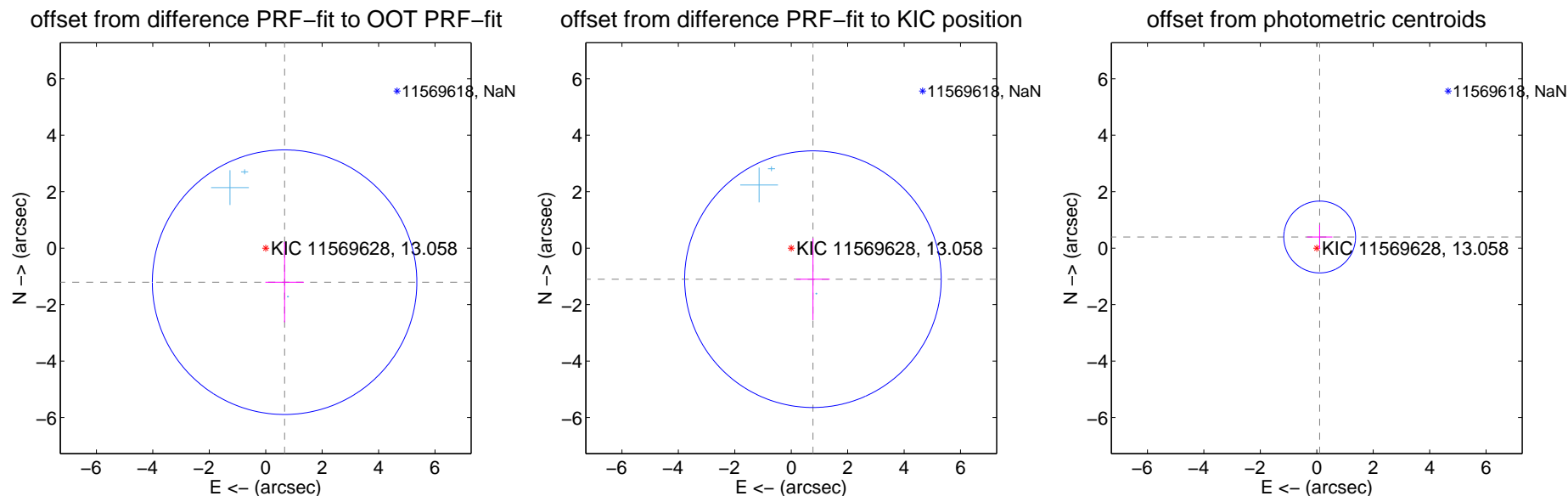
DV Centroid Data

Supplemental centroid analysis for 011569628-02. Kepler magnitude: 13.06. Transit SNR 5.90

There are 3 quarters with good PRF difference image offsets

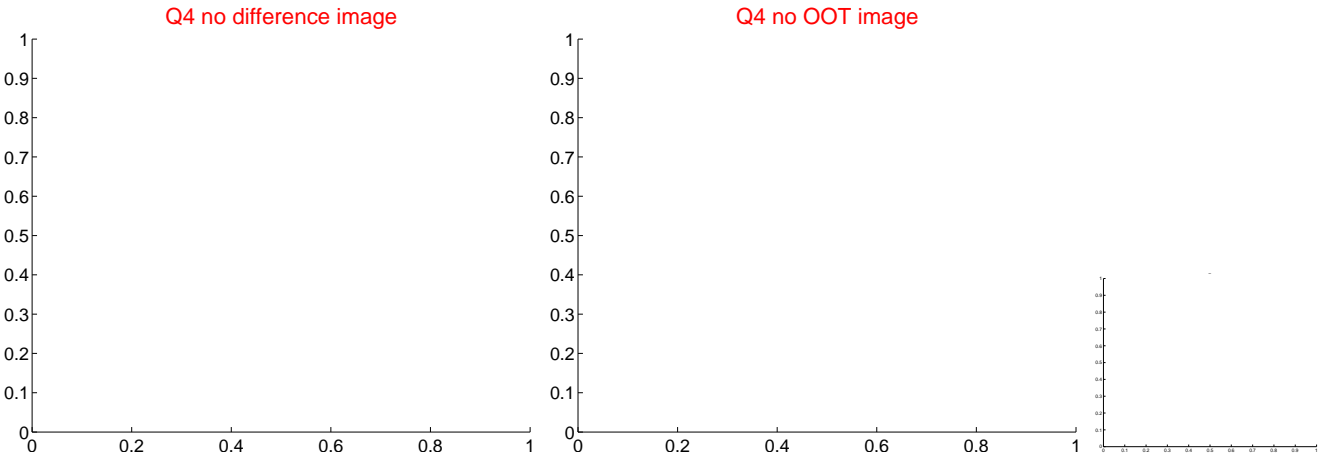
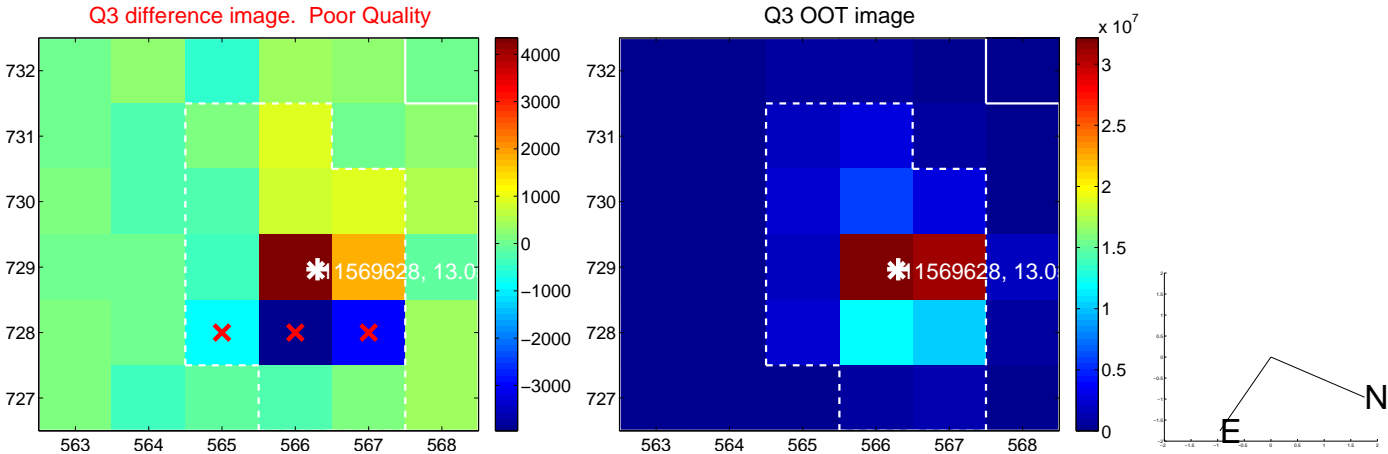
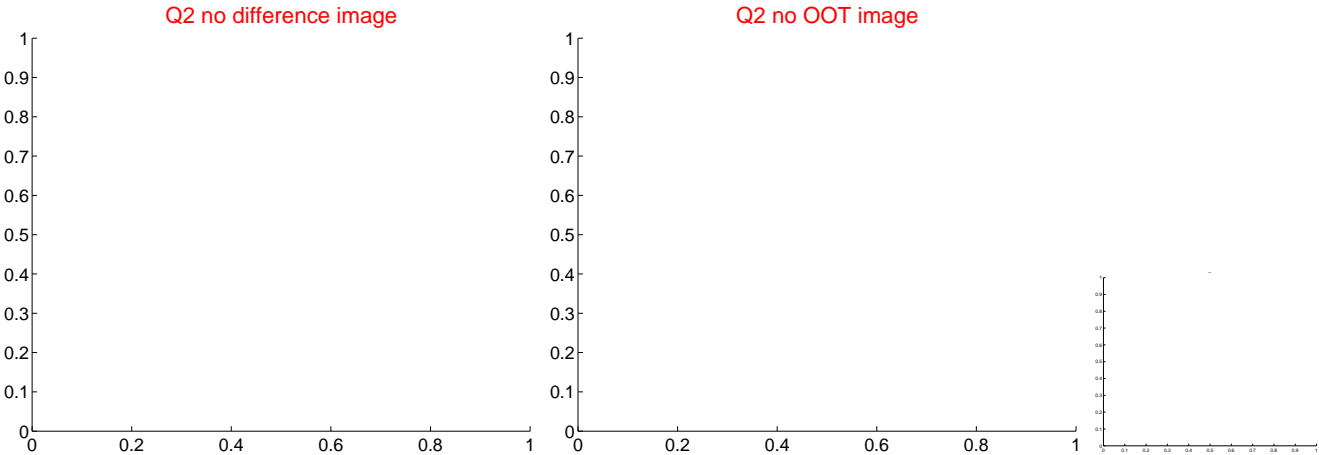
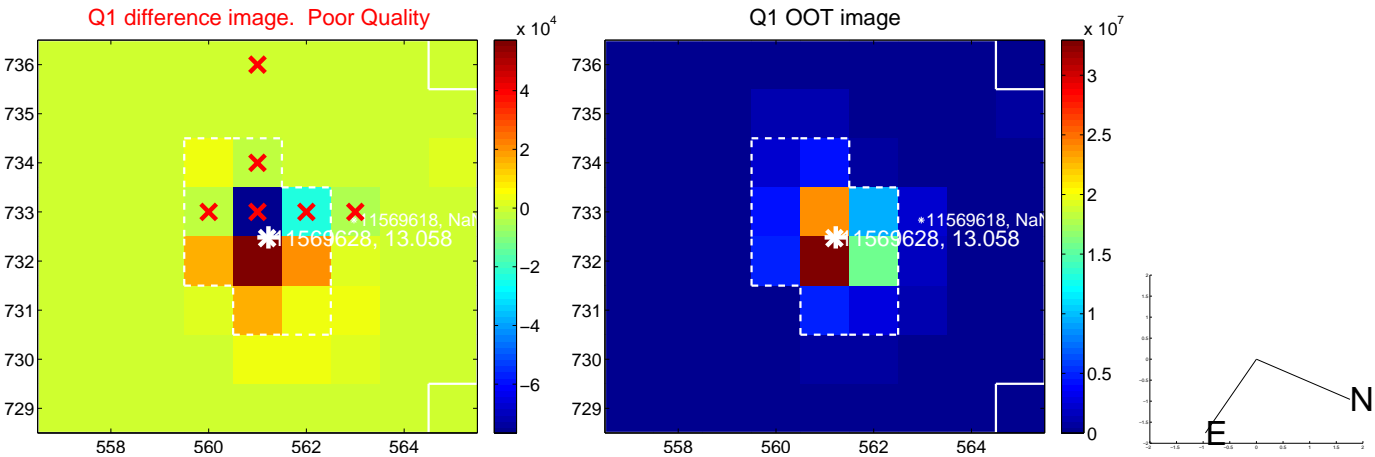
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.379 ± 1.562	0.88	-0.670 ± 0.682	-1.206 ± 1.420
PRF-fit source offset from KIC position	1.341 ± 1.515	0.89	-0.768 ± 0.594	-1.099 ± 1.452
photometric centroid source offset	0.41 ± 0.42	0.96	-0.10 ± 0.45	0.40 ± 0.42



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 ×: 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.

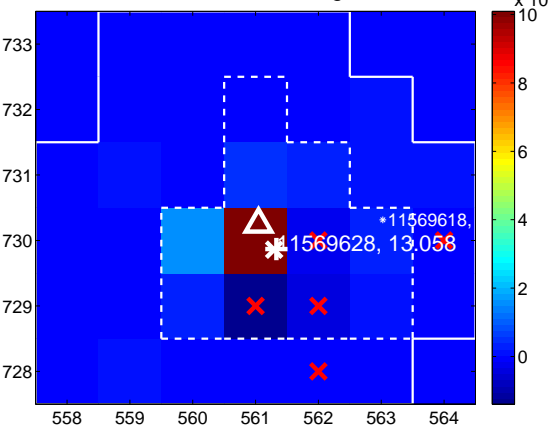
Q5 no difference image



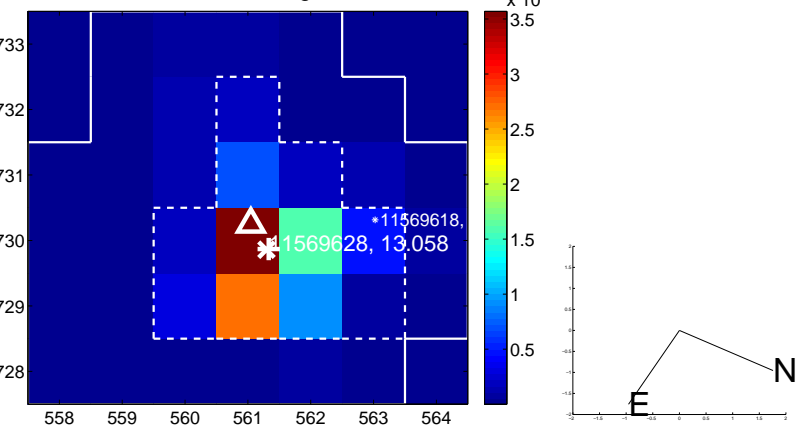
Q5 no OOT image



Q6 difference image



Q6 OOT image



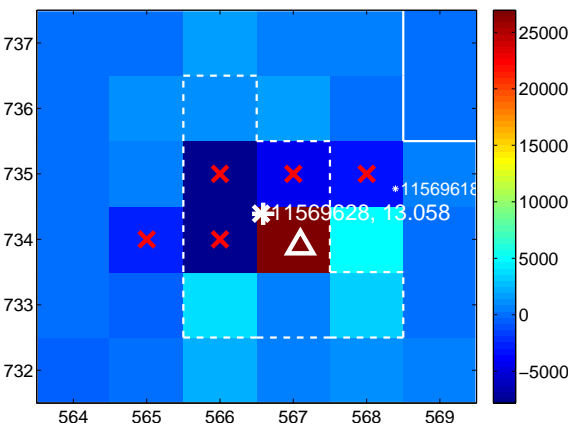
Q7 no difference image



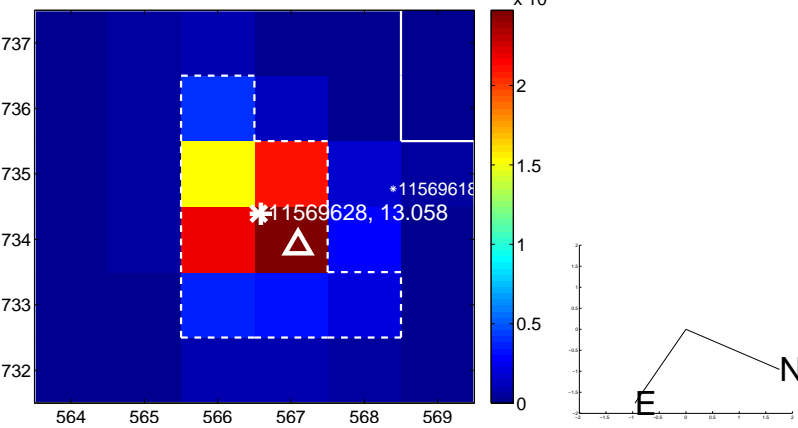
Q7 no OOT image



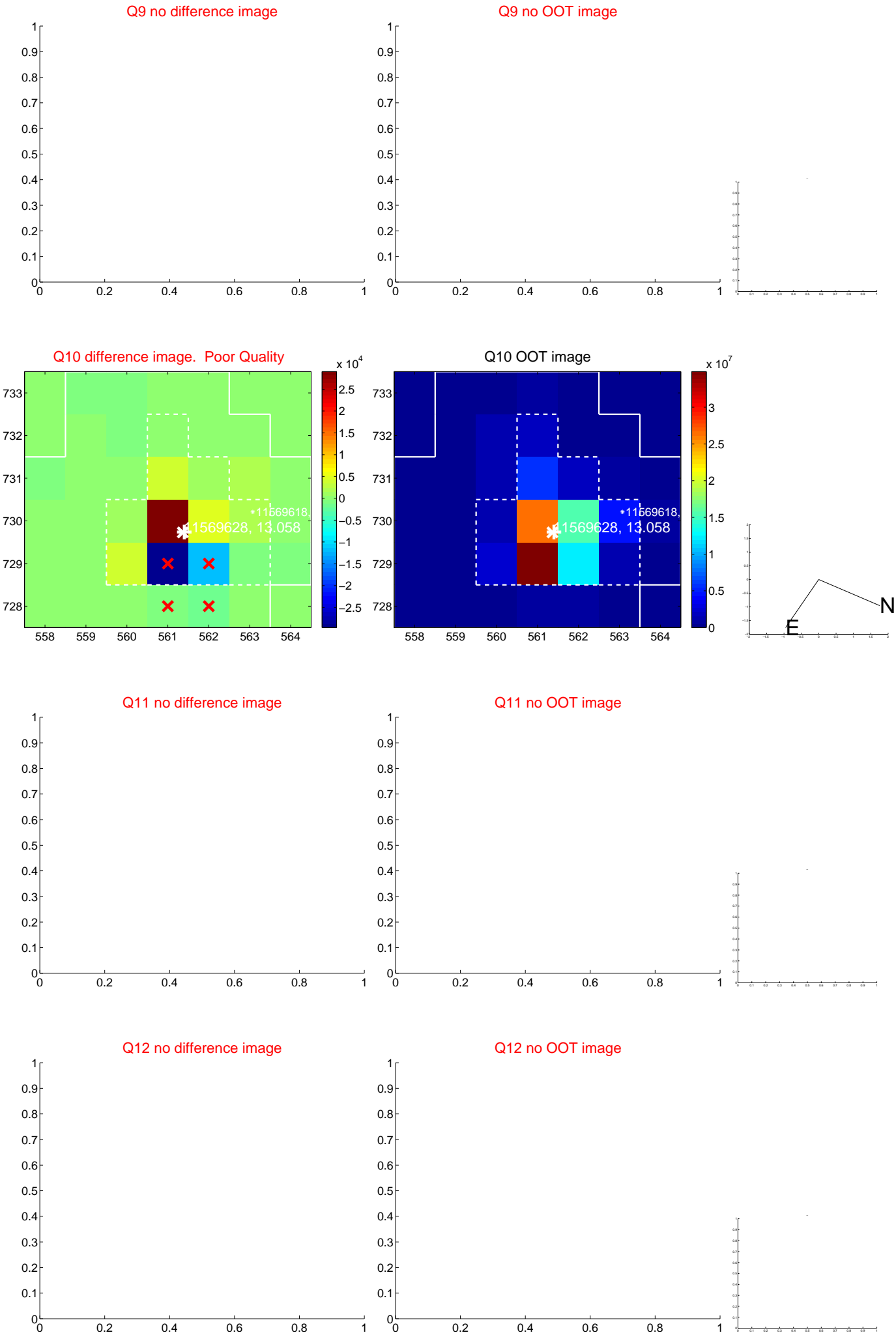
Q8 difference image



Q8 OOT image



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

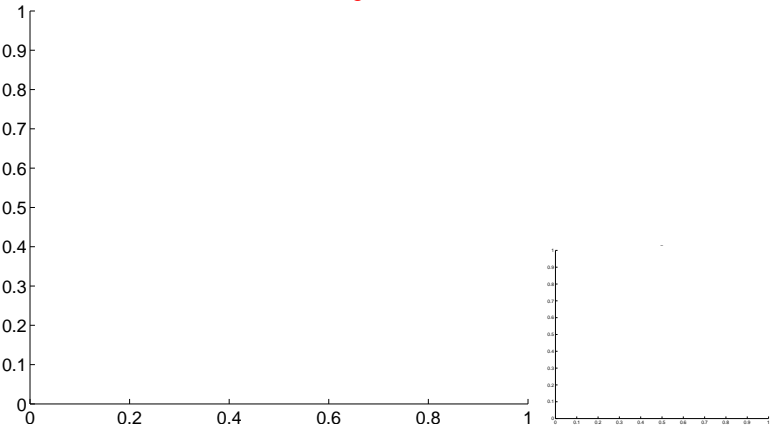


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

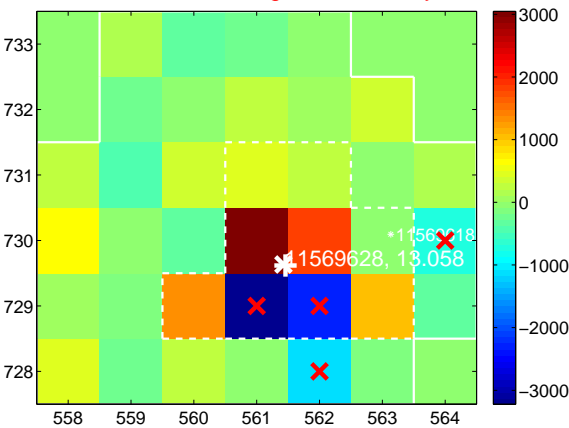
Q13 no difference image



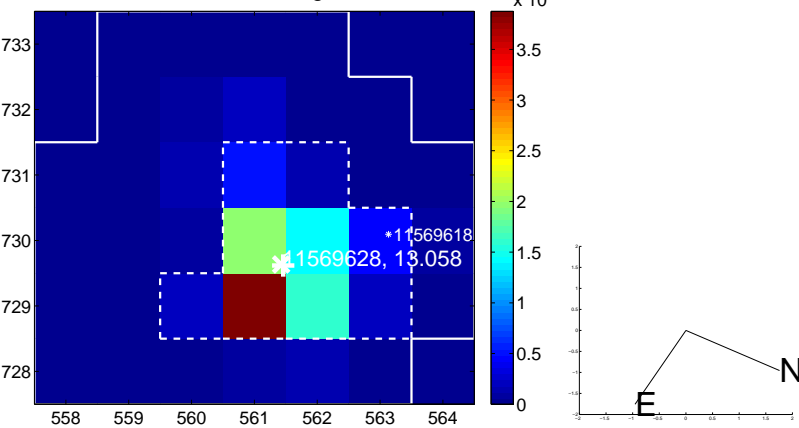
Q13 no OOT image



Q14 difference image. Poor Quality



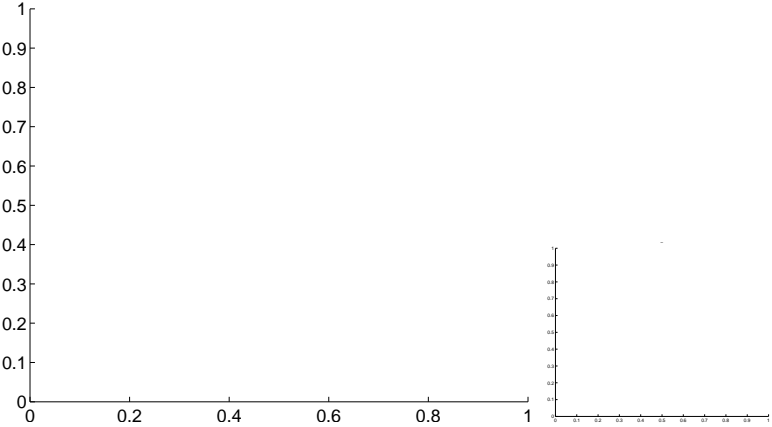
Q14 OOT image



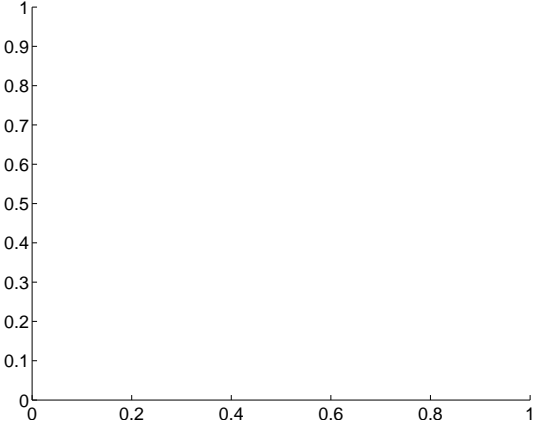
Q15 no difference image



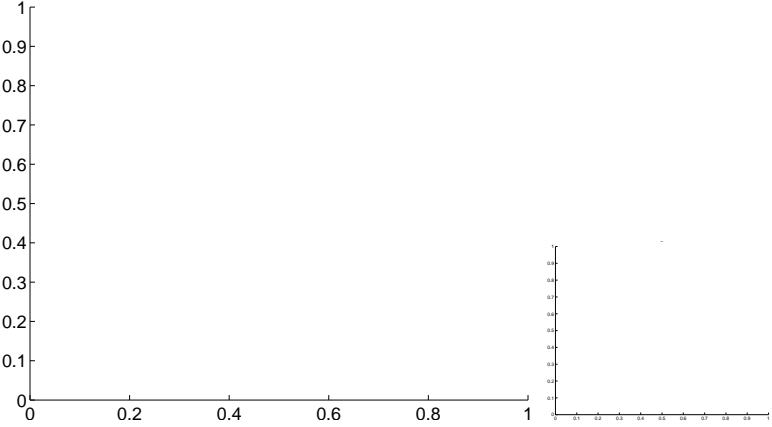
Q15 no OOT image



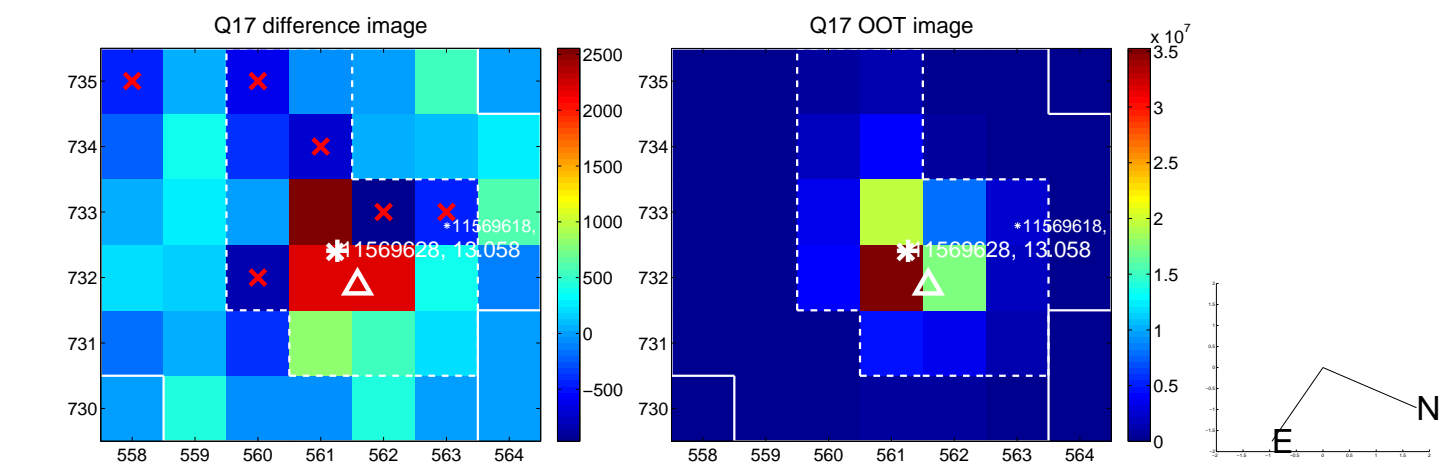
Q16 no difference image



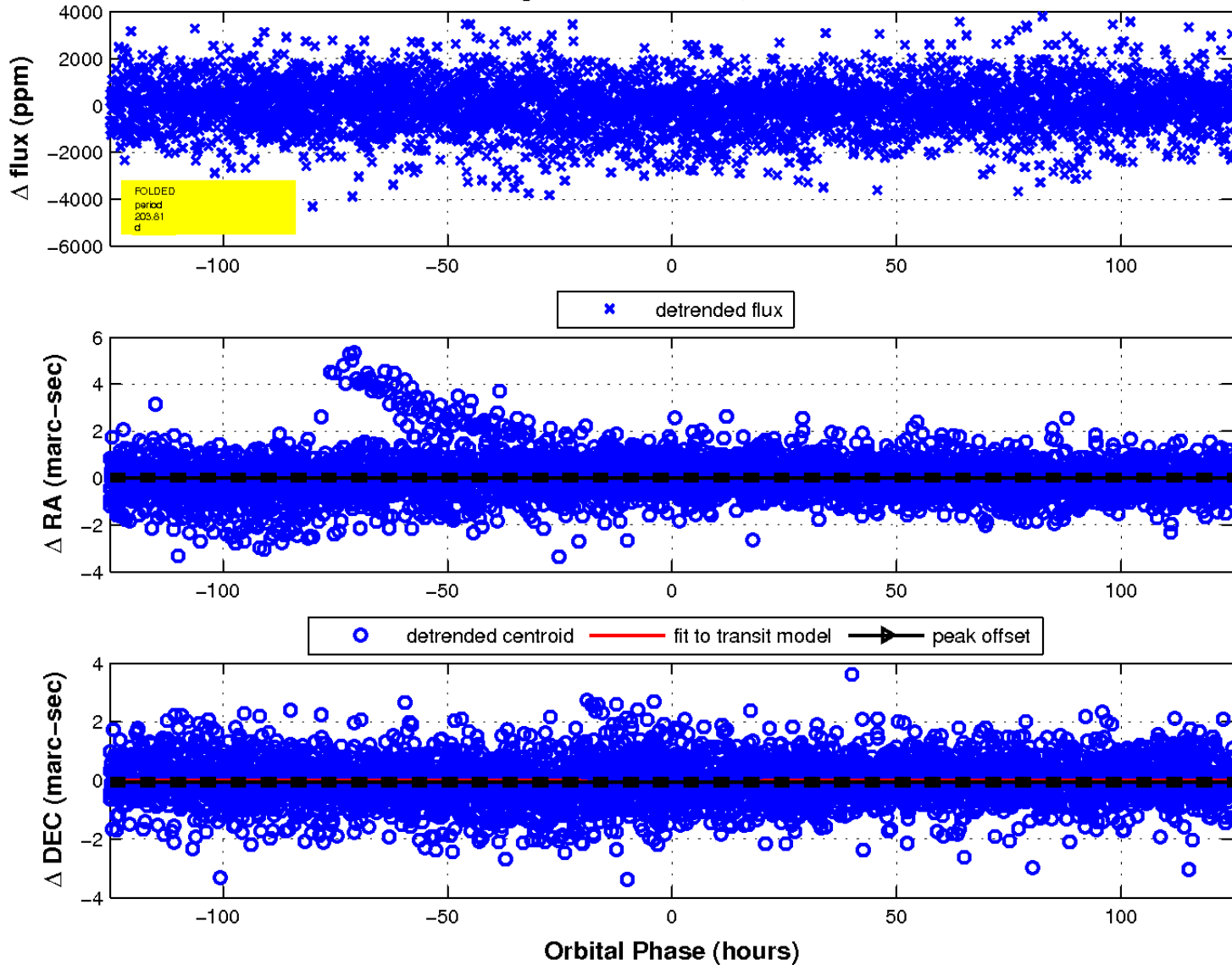
Q16 no OOT image



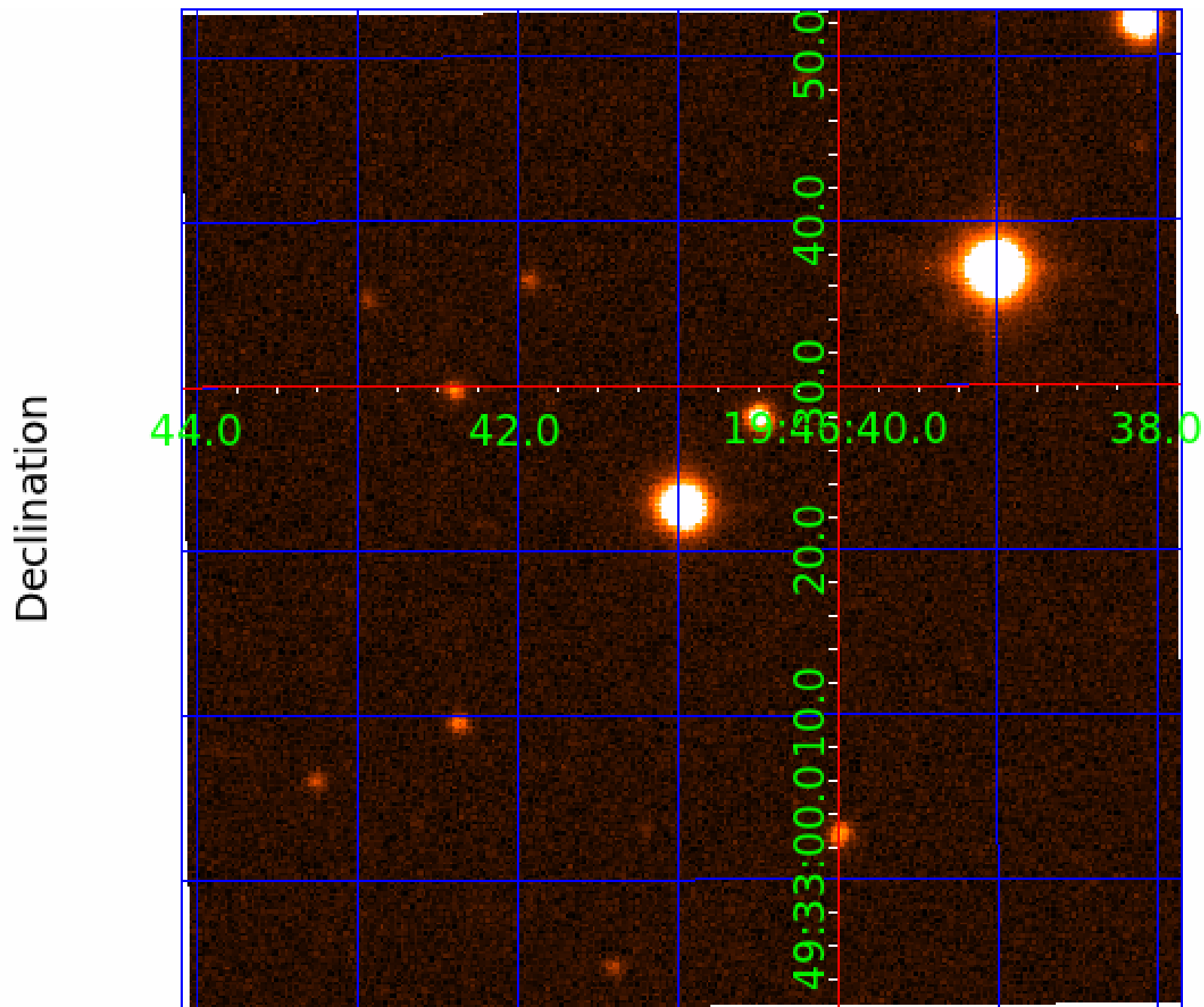
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 2 of 3



UKIRT Image



KIC 011569628

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})
011569628-01	OBS	No	0.920978	132.424803	84.8	3.318	12.9	13.2	1.62	6983	1.72	14377.75
011569628-02	OBS	No	203.814627	140.008271	292.4	41.733	8.9	5.9	1.62	6983	2.92	10.74
011569628-03	OBS	No	0.678444	131.717677	88.9	7.315	9.0	13.6	1.62	6983	1.54	21610.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011569628-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
011569628-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS
011569628-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT

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

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

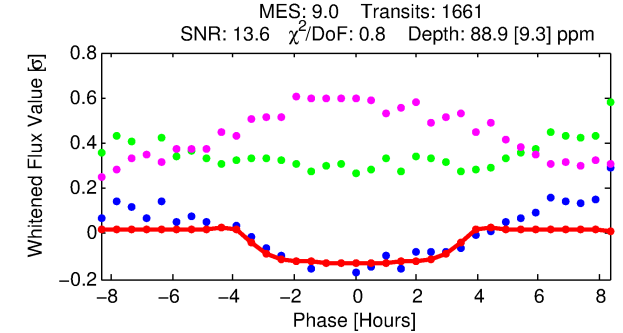
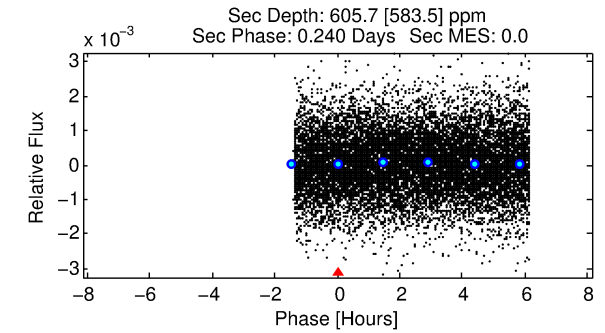
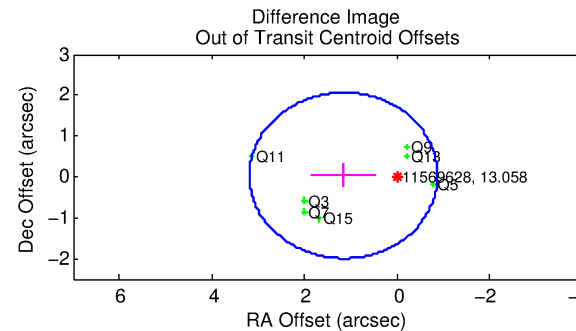
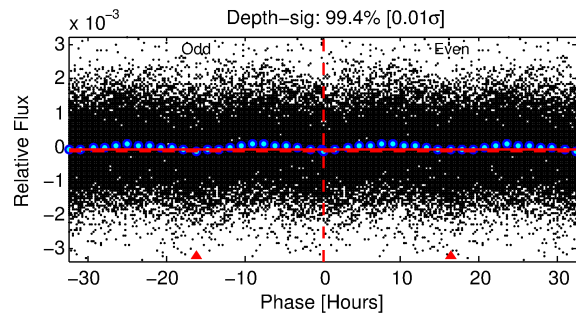
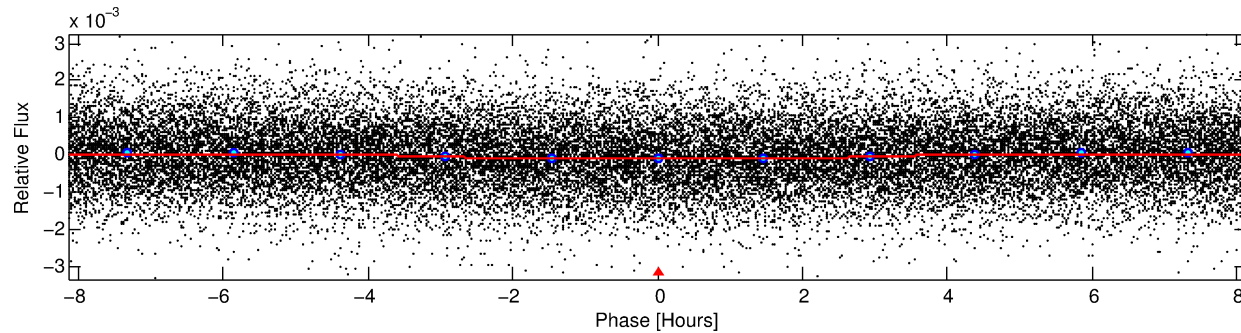
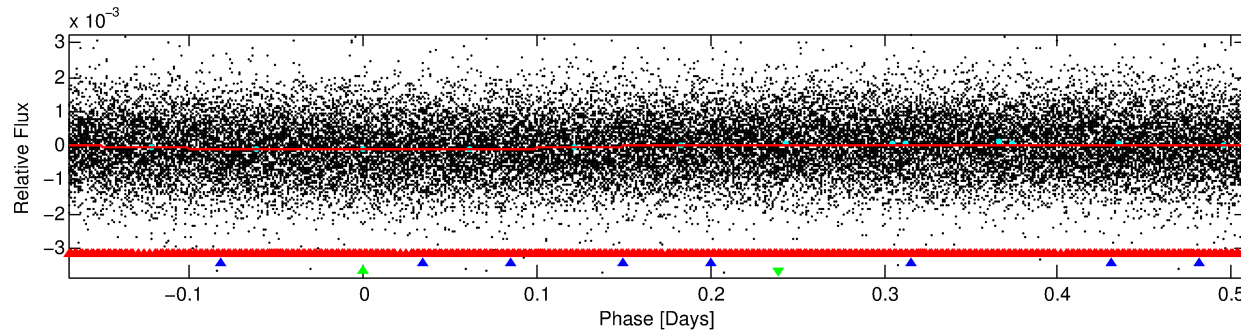
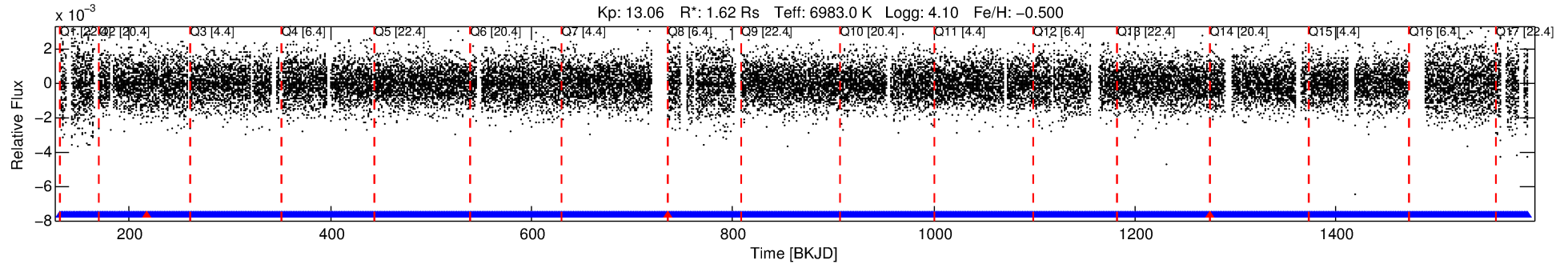
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011569628-03

No Significant Match Found

DV One-Page Summary

KIC: 11569628 Candidate: 3 of 3 Period: 0.678 d



DV Fit Results:

Period = 0.67844 [0.00001] d
Epoch = 131.7177 [0.0058] BKJD
Rp/R* = 0.0087 [0.0056]
a/R* = 1.02 [0.14]
b = 0.00 [2805.28]
Seff = 21610.85 [9753.21]
Teq = 3092 [349] K
Rp = 1.54 [1.08] Re
a = 0.0160 [0.0042] AU
Ag = 36.22 [60.12] [0.59σ]
Teffp = 11726 [4741] K [1.82σ]

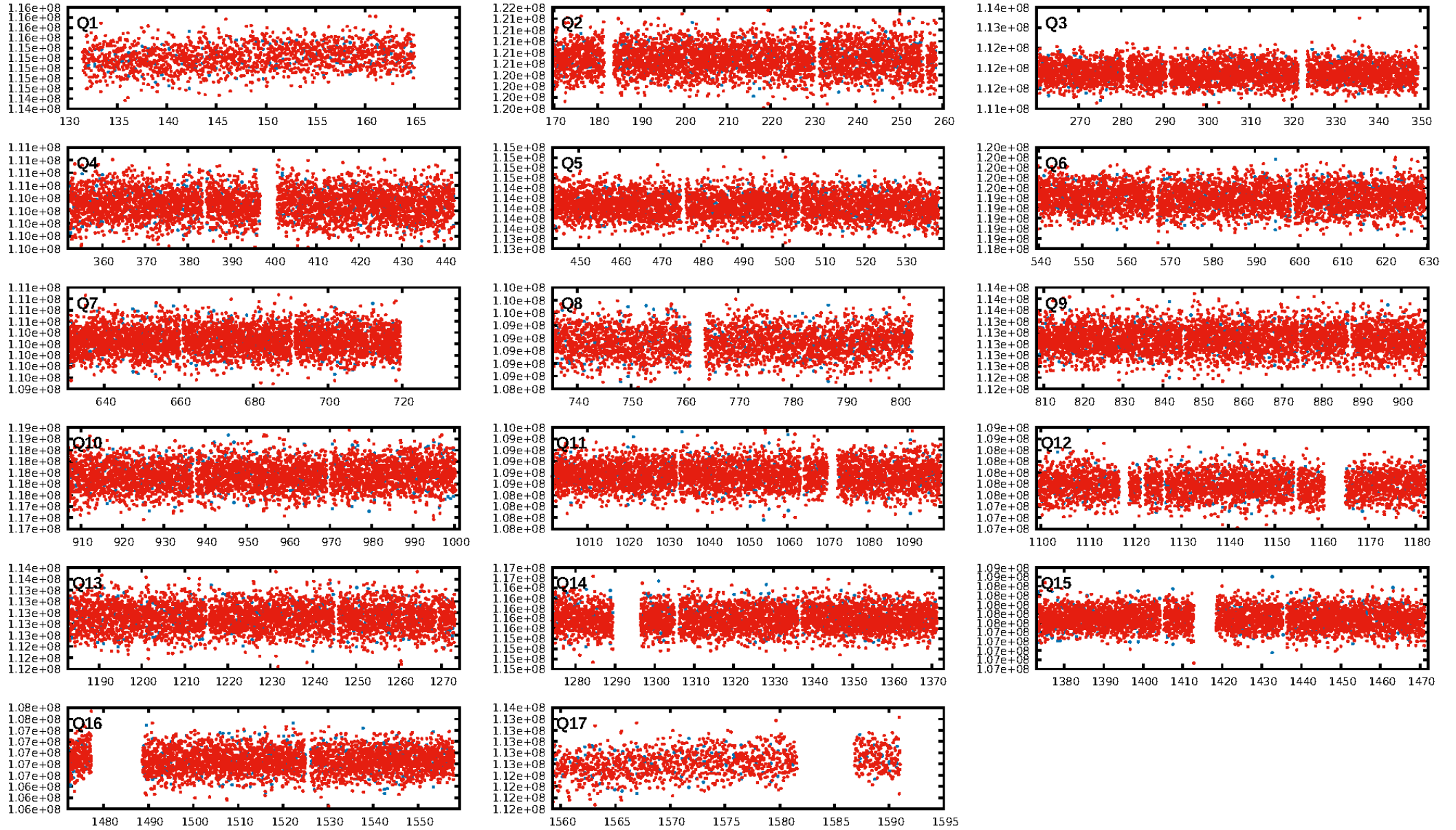
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 53.1% [0.72σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1590/1593]
GhostDiagnostic-chr: 1.872
Centroid-sig: 4.0%
Centroid-so: 0.121 arcsec [0.67σ]
OotOffset-rm: 1.155 arcsec [1.70σ]
KicOffset-rm: 1.044 arcsec [1.49σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 0.00 [0/17]

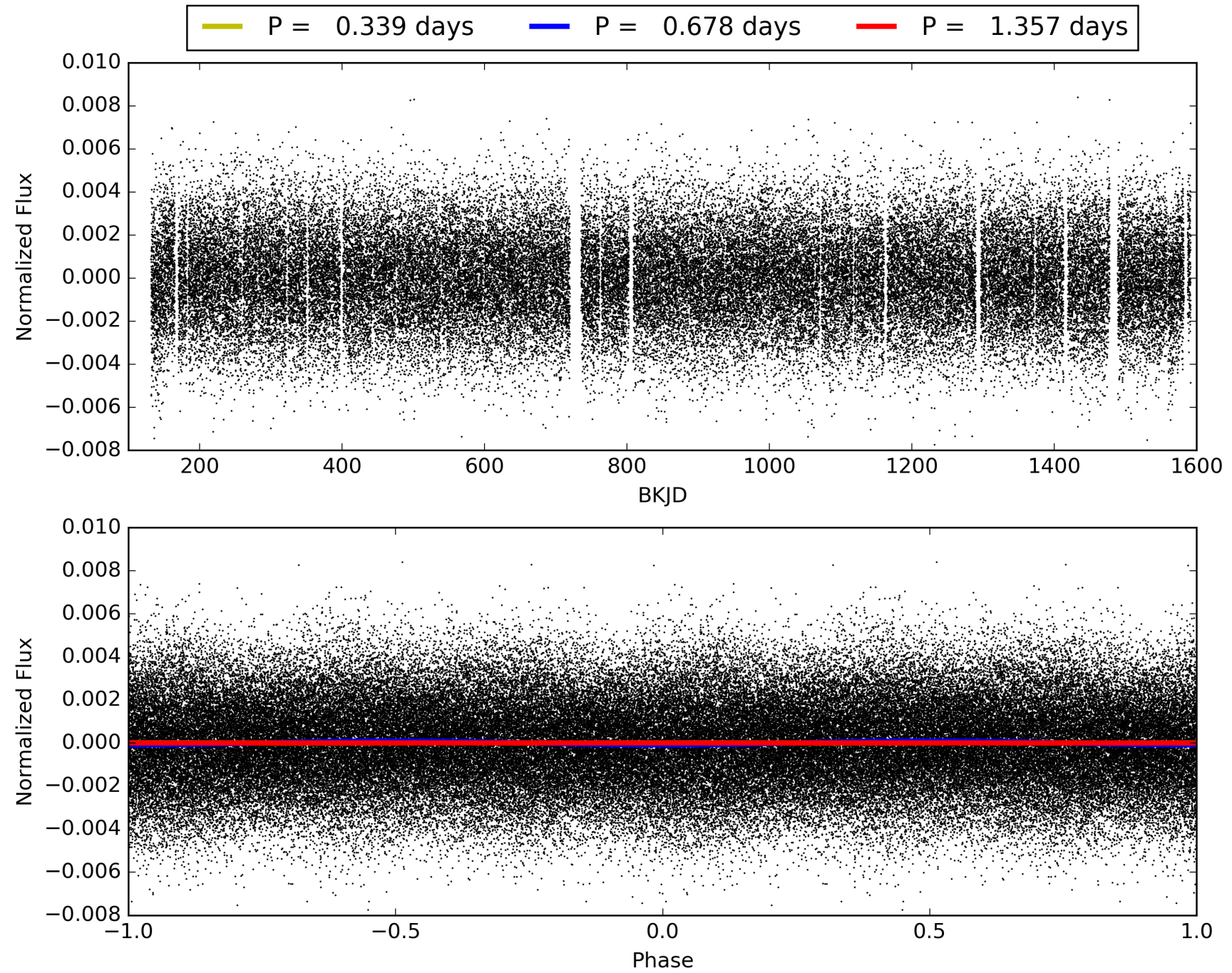
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:59:25 Z

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

TCE 011569628-03, PDC Light Curves

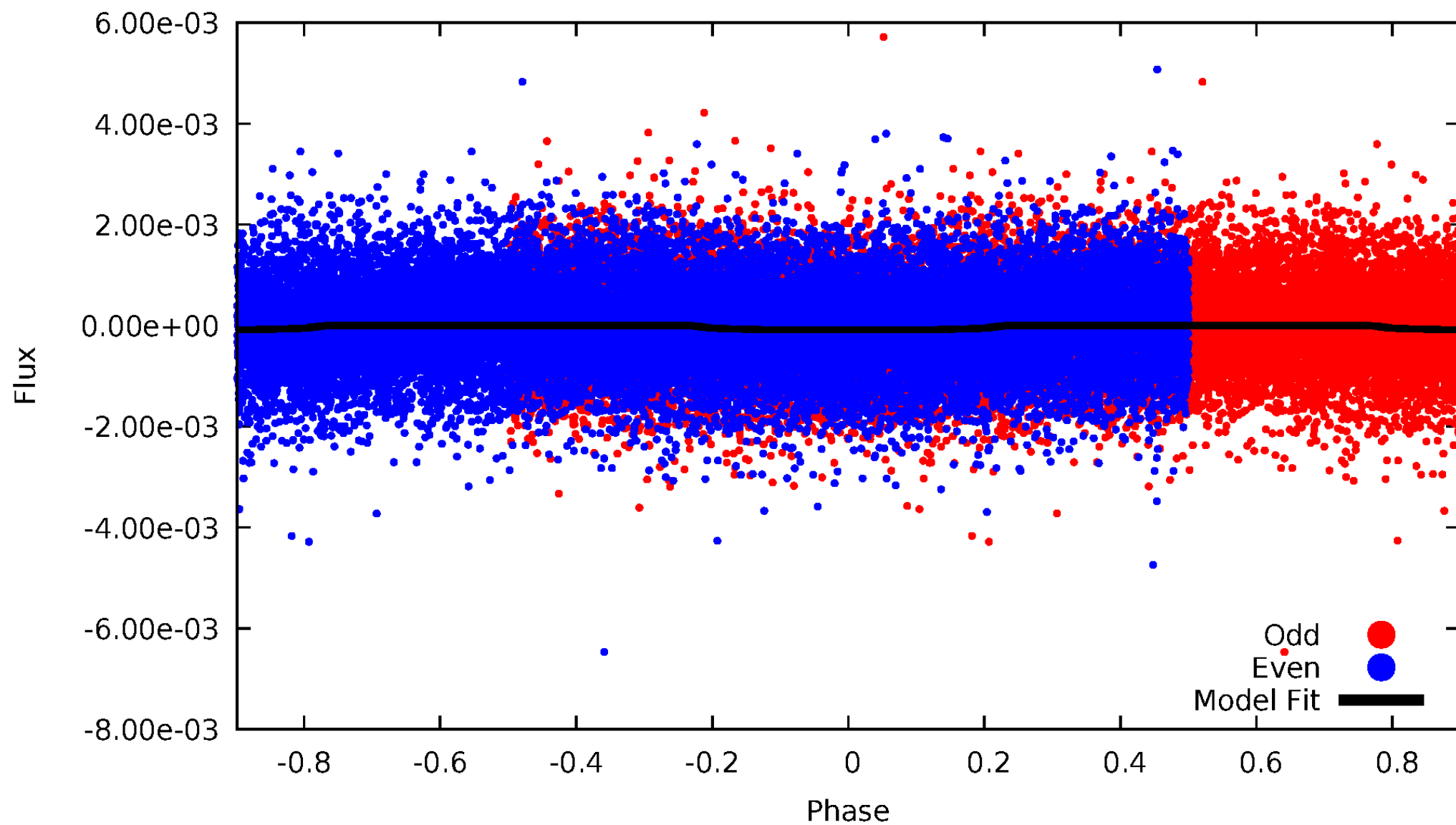


TCE 011569628-03



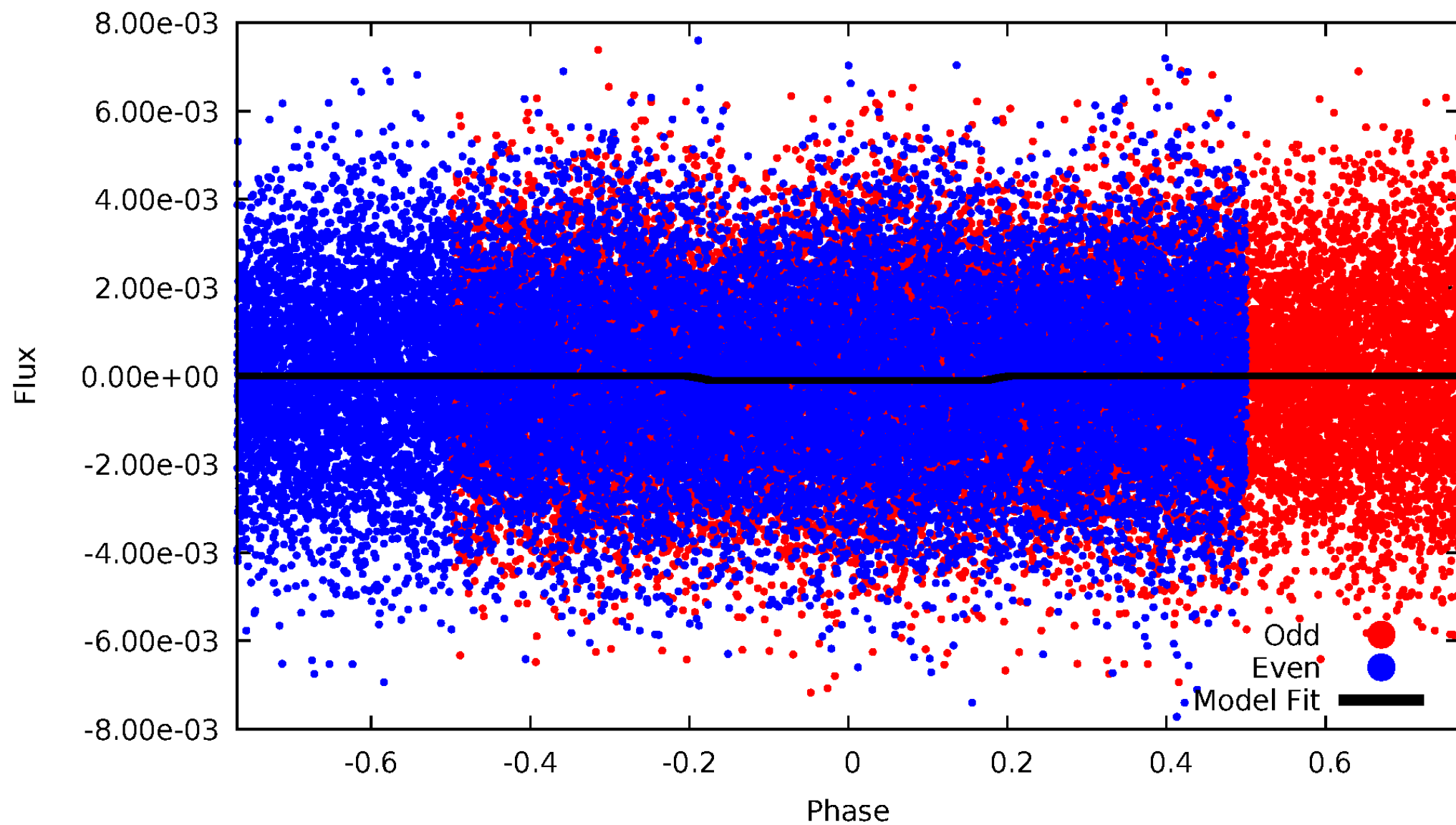
DV Odd/Even

TCE 011569628-03

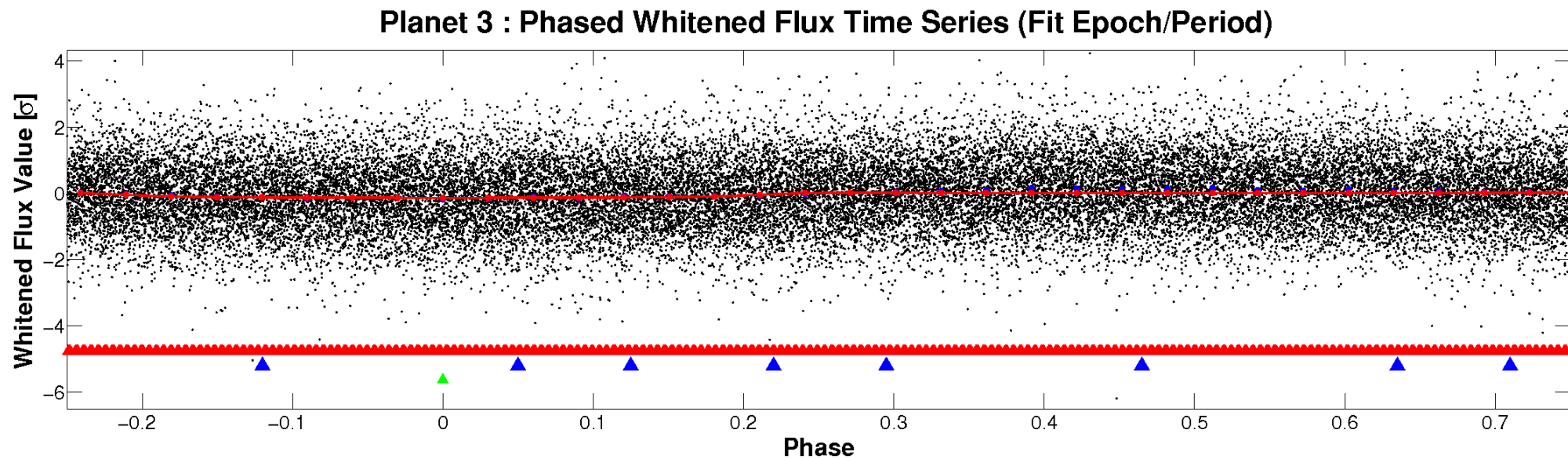
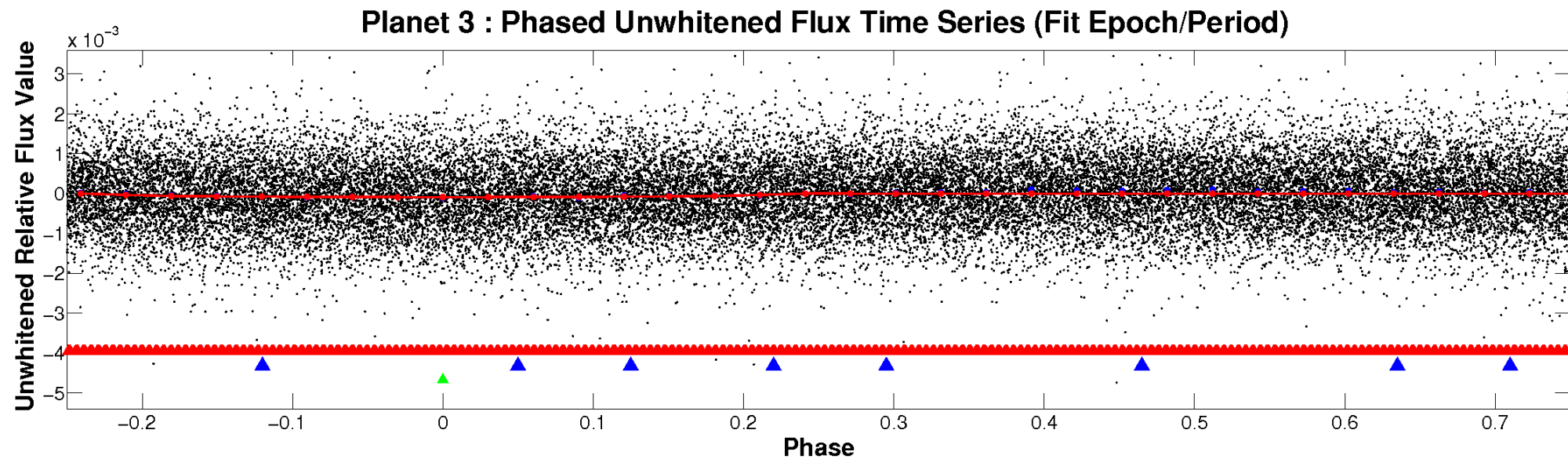


ALT Odd/Even

TCE 011569628-03

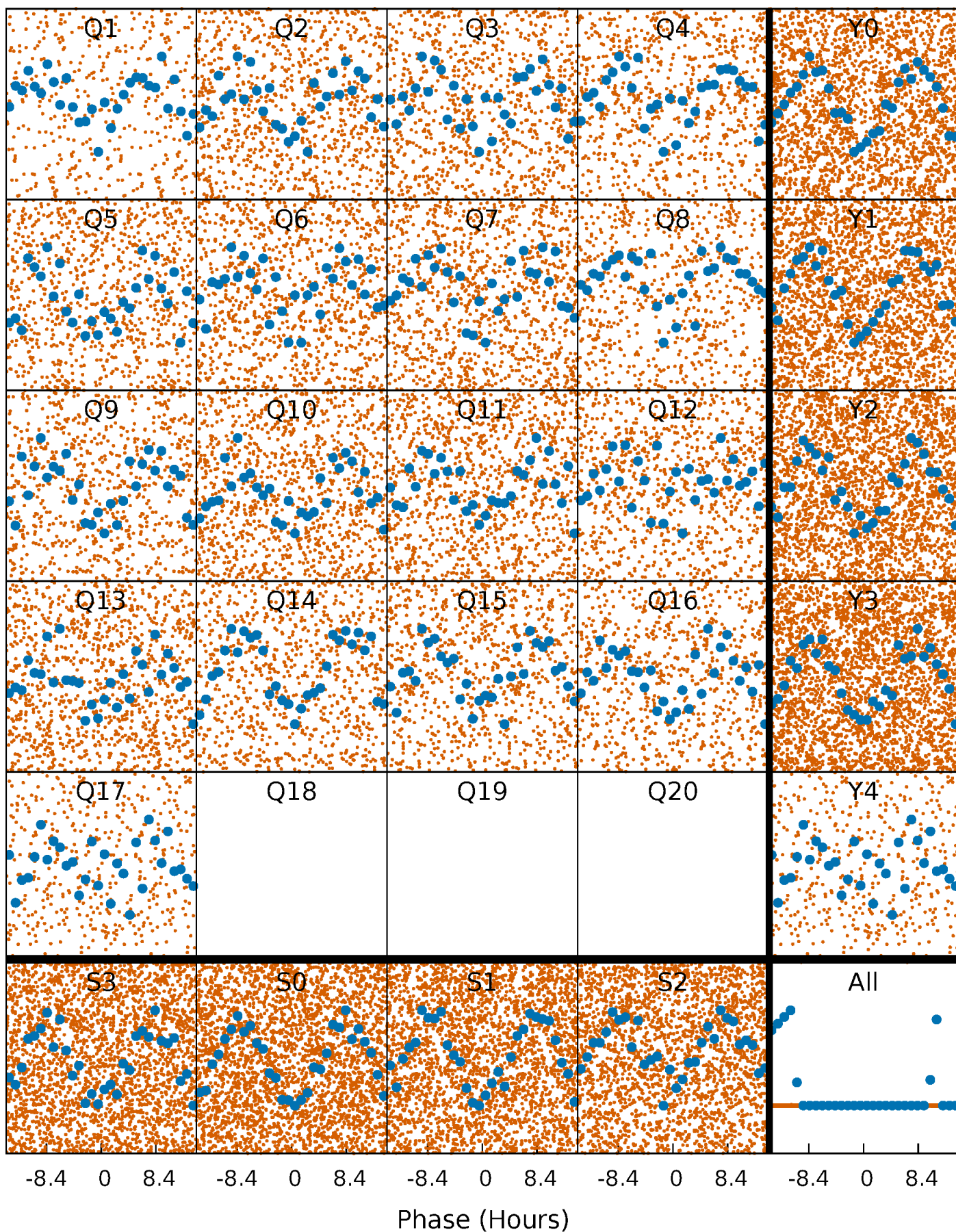


Non-Whitened Vs. Whitened Light Curve



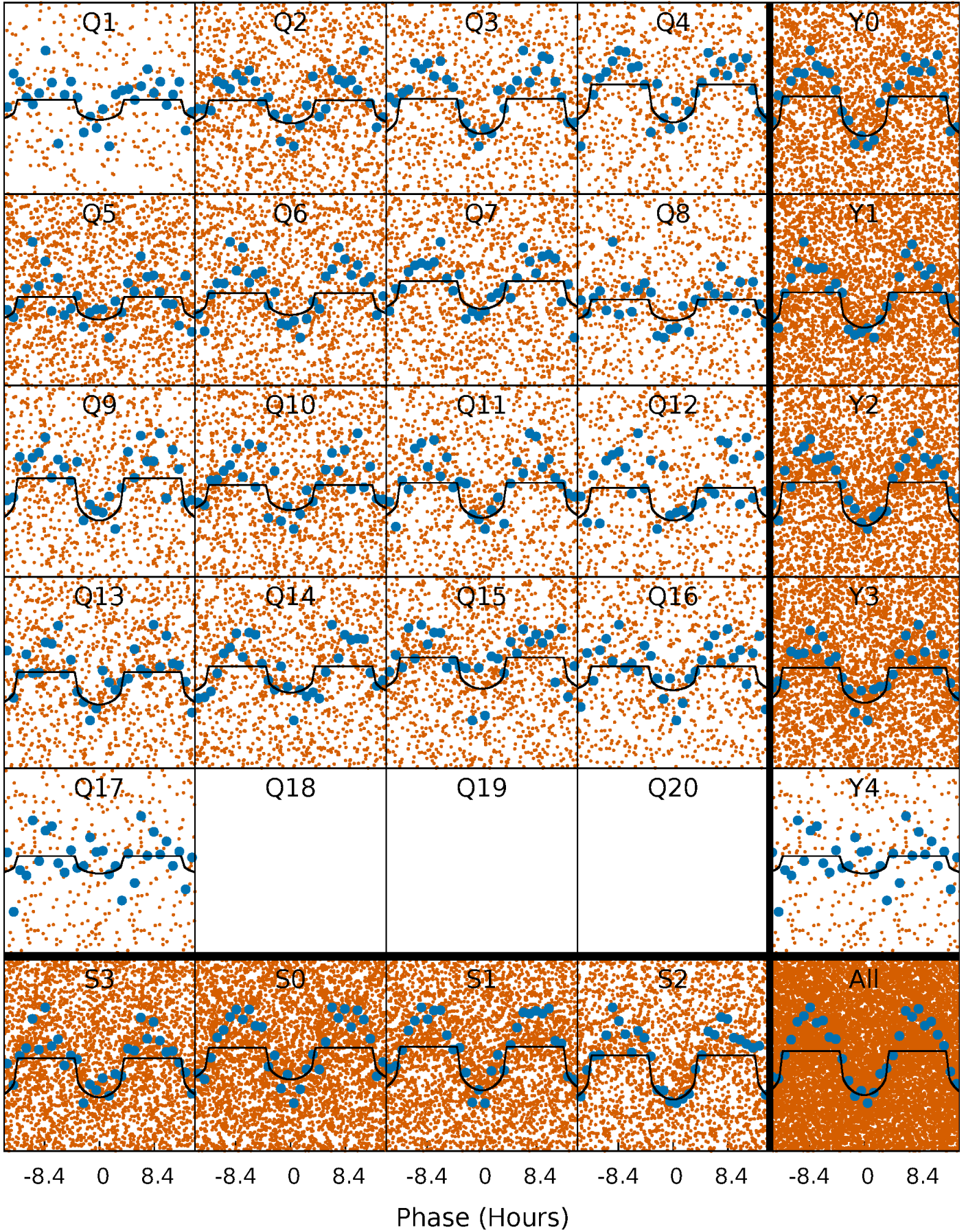
PDC Quarter-Phased Transit Curves

TCE 011569628-03 P= 0.678444 Days $T_0=131.717677$ (BKJD)



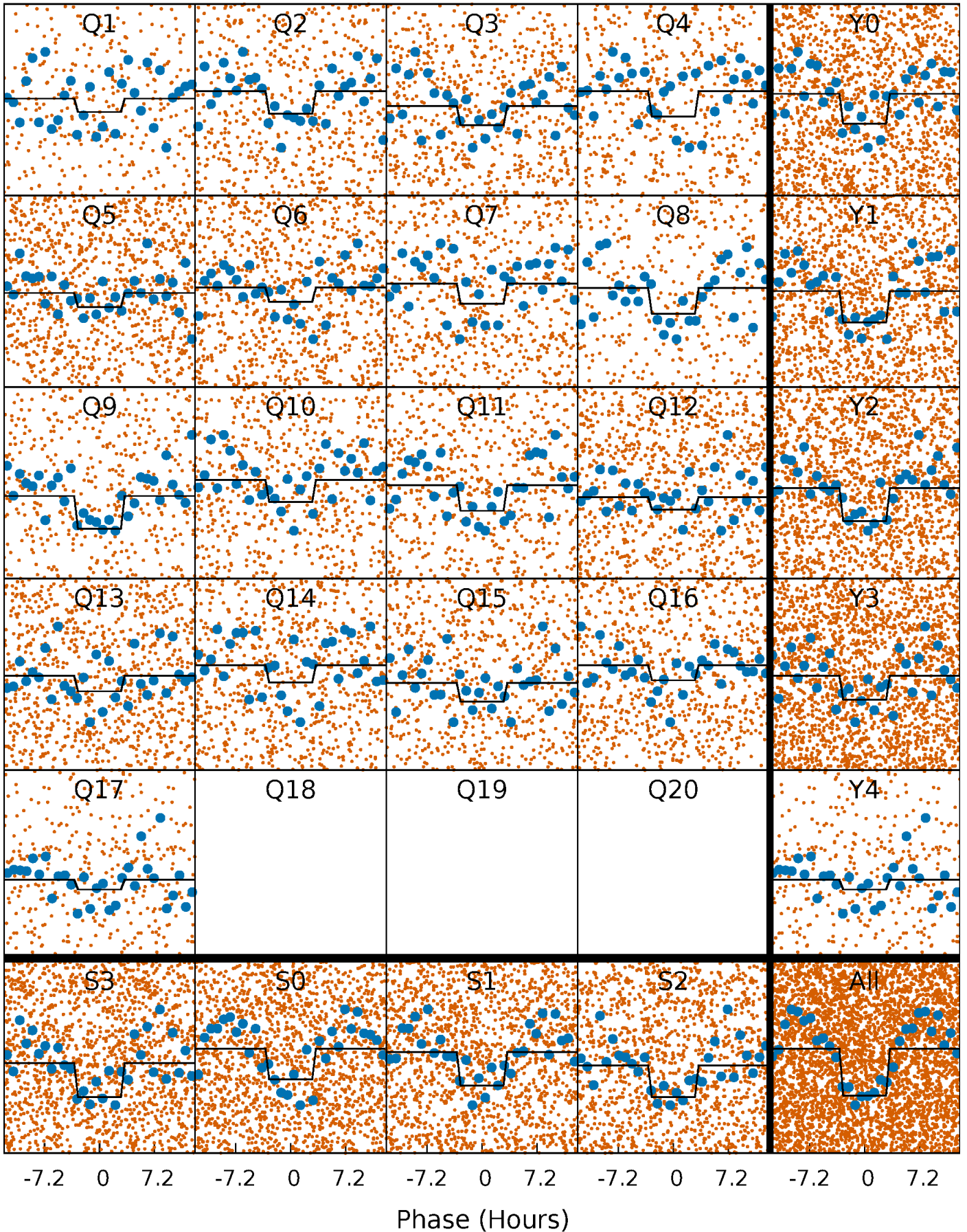
DV Quarter-Phased Transit Curves

TCE 011569628-03 P= 0.678444 Days $T_0=131.717677$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

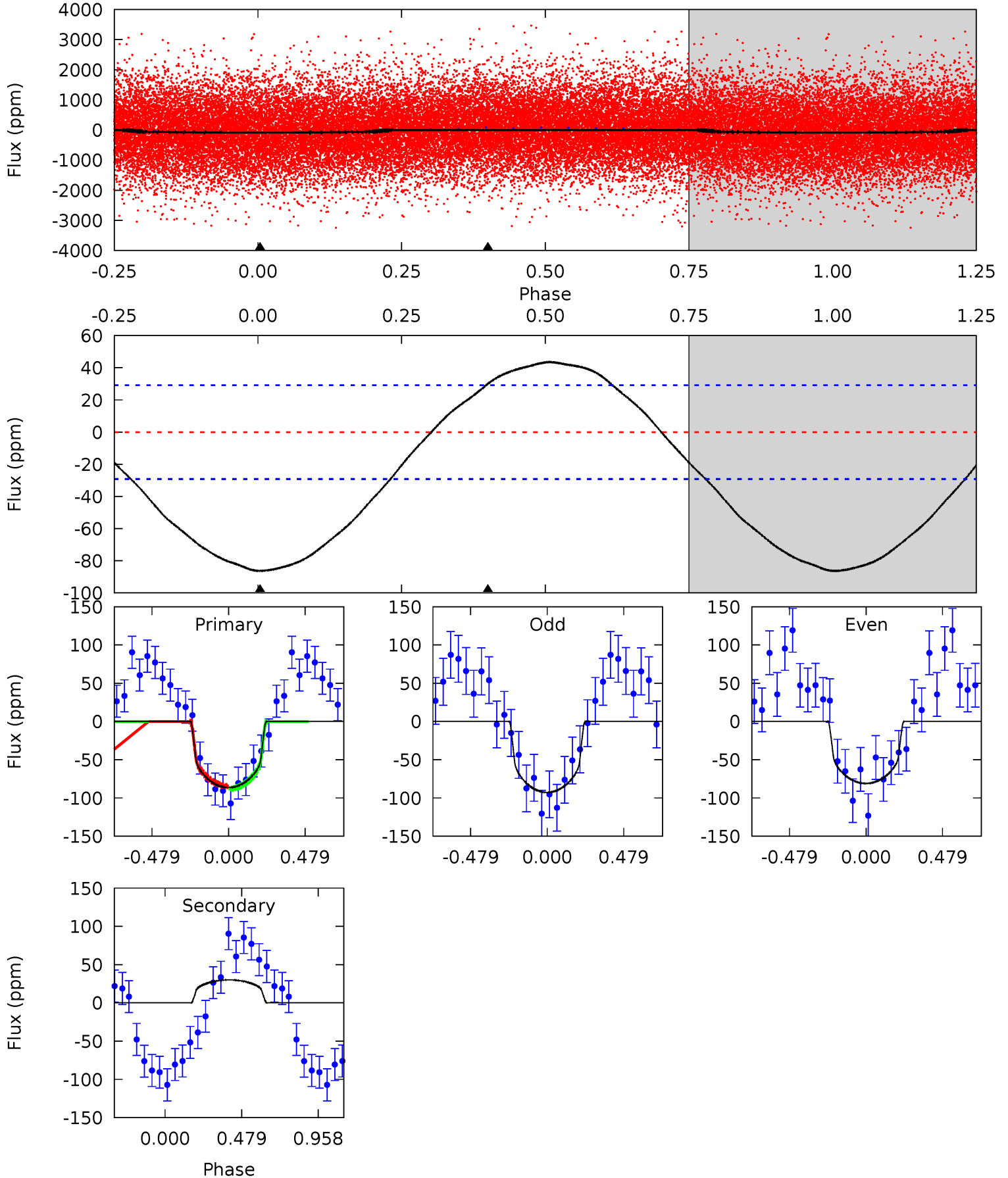
TCE 011569628-03 P= 0.678464 Days $T_0=131.709016$ (BKJD)



DV Model-Shift Uniqueness Test

011569628-03, P = 0.678444 Days, E = 131.717677 Days

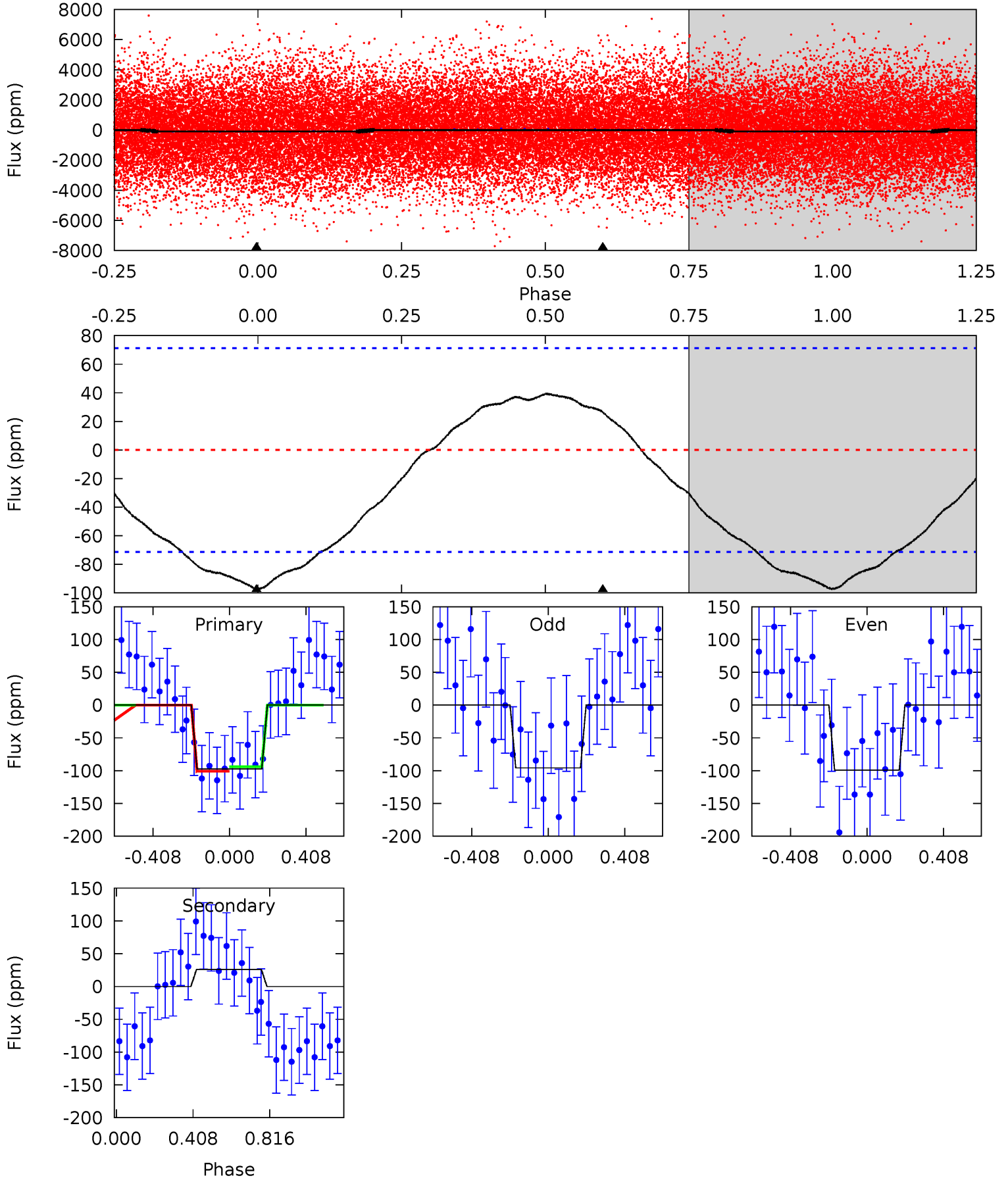
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	-4.35	0	0	4.22	0.71	1.66	12.5	12.5	-4.35	-4.35	0.87	1.17	0.34	0.27



Alt Model-Shift Uniqueness Test

011569628-03, P = 0.678464 Days, E = 131.709016 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.82	-1.56	0	0	4.26	0.83	0.63	5.82	5.82	-1.56	-1.56	0.10	1.11	0.29	0.19



Stellar Parameters For KIC 011569628

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6983^{+216}_{-312}	$4.099^{+0.240}_{-0.160}$	$-0.500^{+0.250}_{-0.300}$	$1.616^{+0.460}_{-0.460}$	$1.196^{+0.185}_{-0.166}$	$0.399^{+0.523}_{-0.184}$
	+3%/-4%	+6%/-4%	+50%/-60%	+28%/-28%	+15%/-14%	+131%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011569628-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	30 ± 7	$1.65^{+0.96}_{-0.89}$	4259^{+313}_{-335}	-5474^{+757}_{-2474}	$-1.509^{+0.924}_{-6.311}$
Alt.	26 ± 17	$1.75^{+1.16}_{-0.86}$	4275^{+348}_{-354}	-5119^{+888}_{-1893}	$-0.993^{+0.764}_{-3.342}$

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 $A_{obs} \gg 1.0$

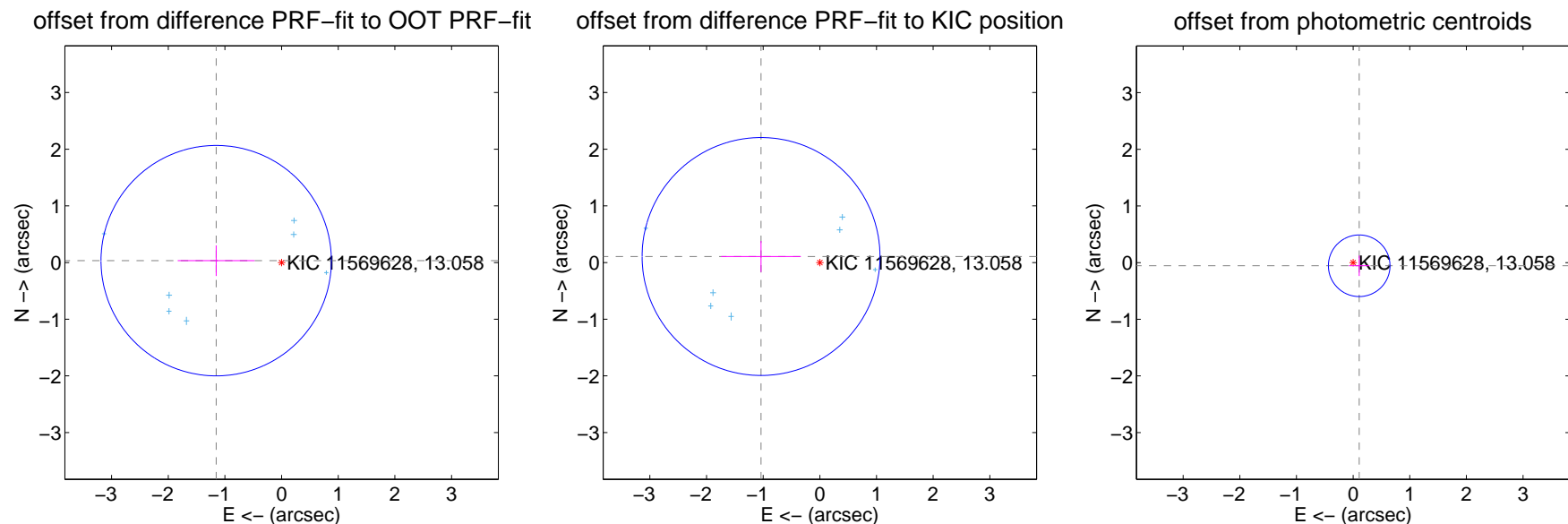
DV Centroid Data

Supplemental centroid analysis for 011569628-03. Kepler magnitude: 13.06. Transit SNR 13.55

There are 7 quarters with good PRF difference image offsets

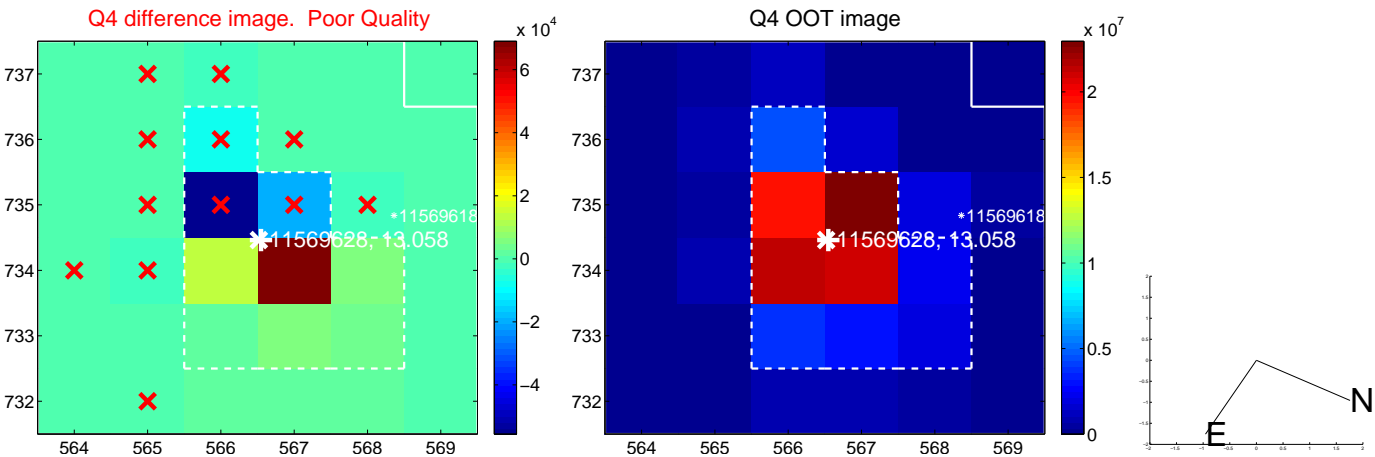
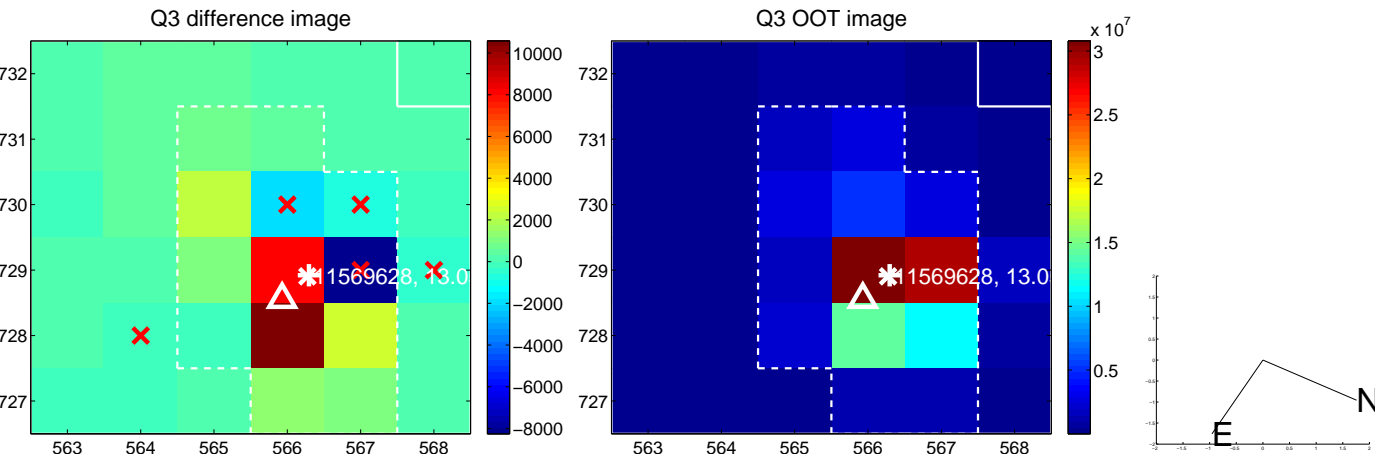
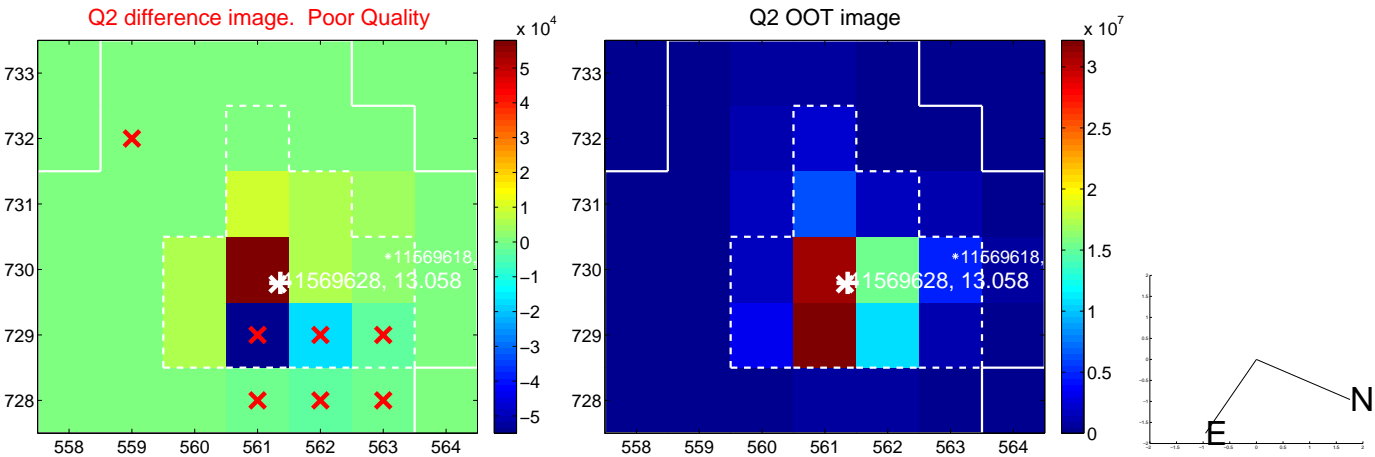
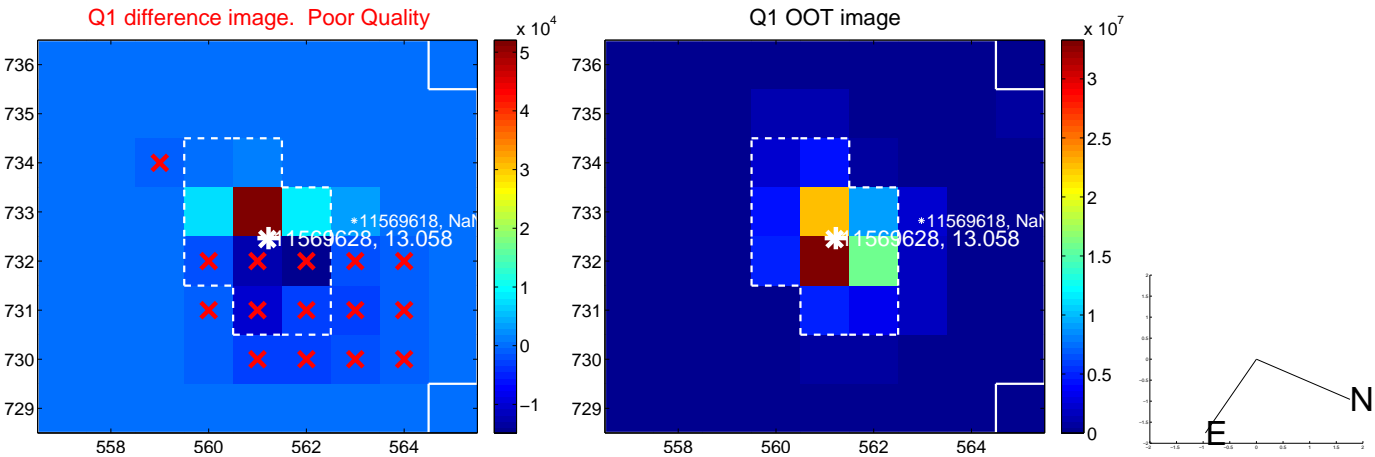
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.155 ± 0.678	1.70	1.154 ± 0.678	0.033 ± 0.271
PRF-fit source offset from KIC position	1.044 ± 0.700	1.49	1.038 ± 0.703	0.107 ± 0.275
photometric centroid source offset	0.12 ± 0.18	0.67	-0.11 ± 0.18	-0.06 ± 0.18

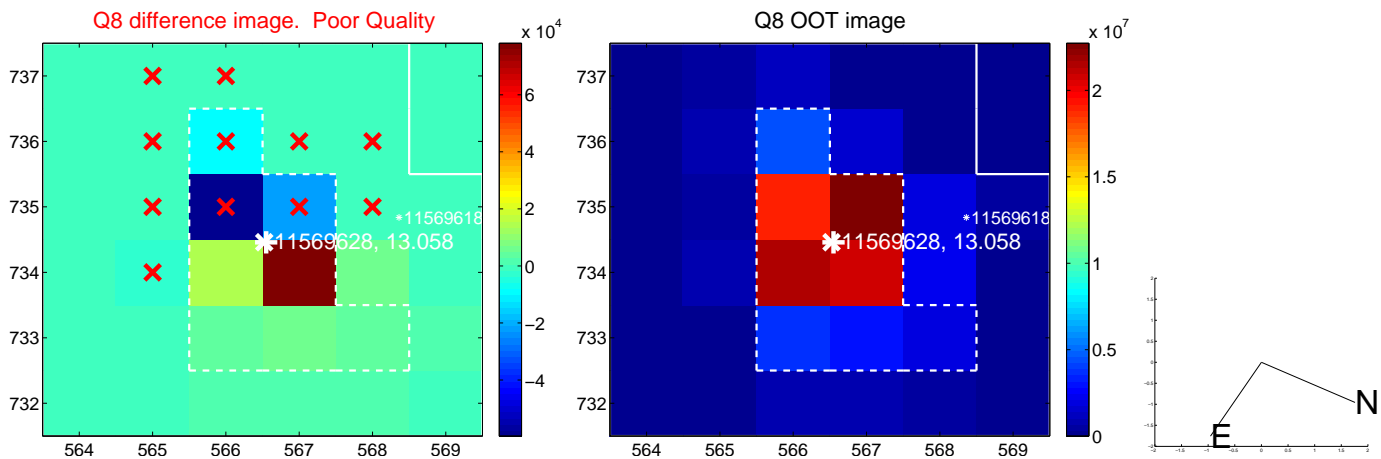
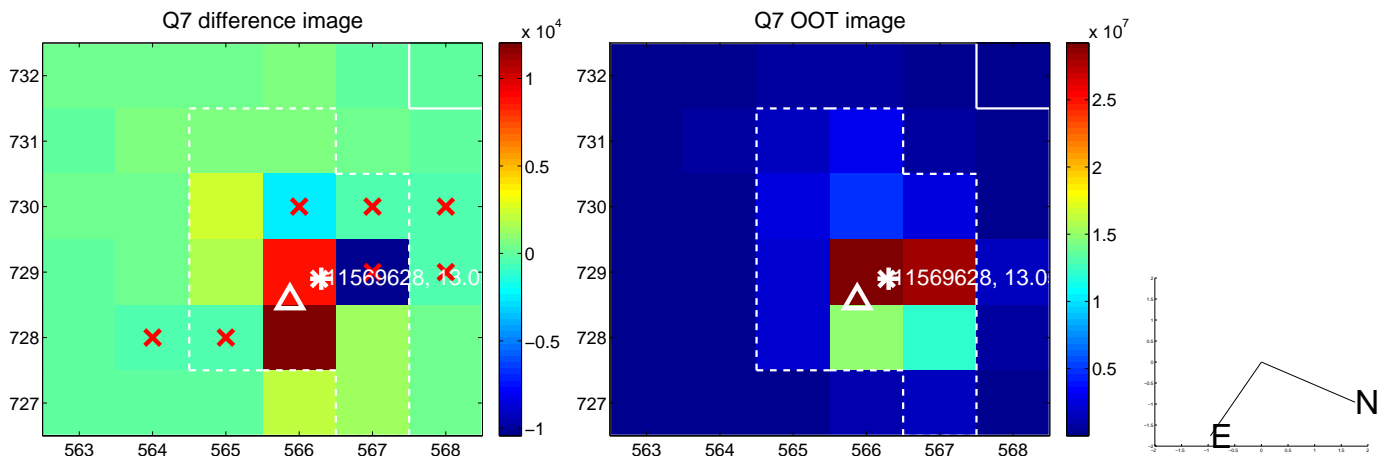
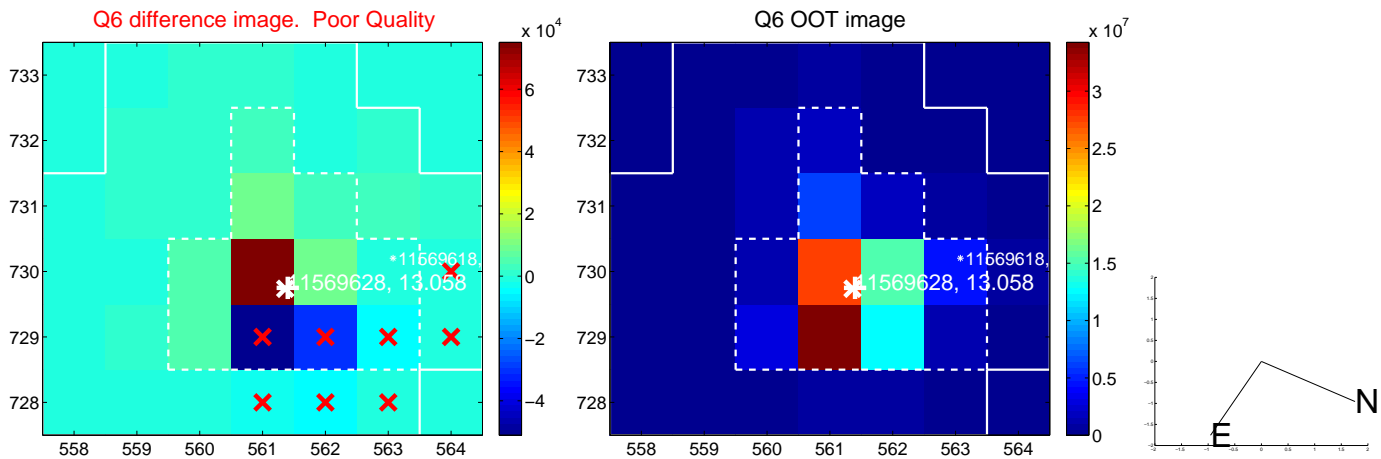
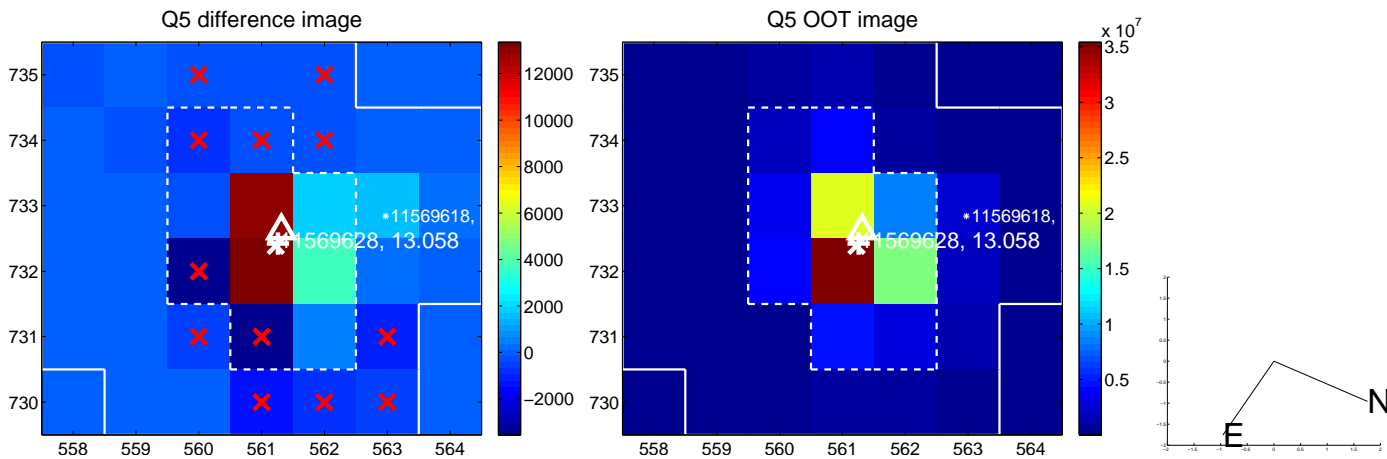


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

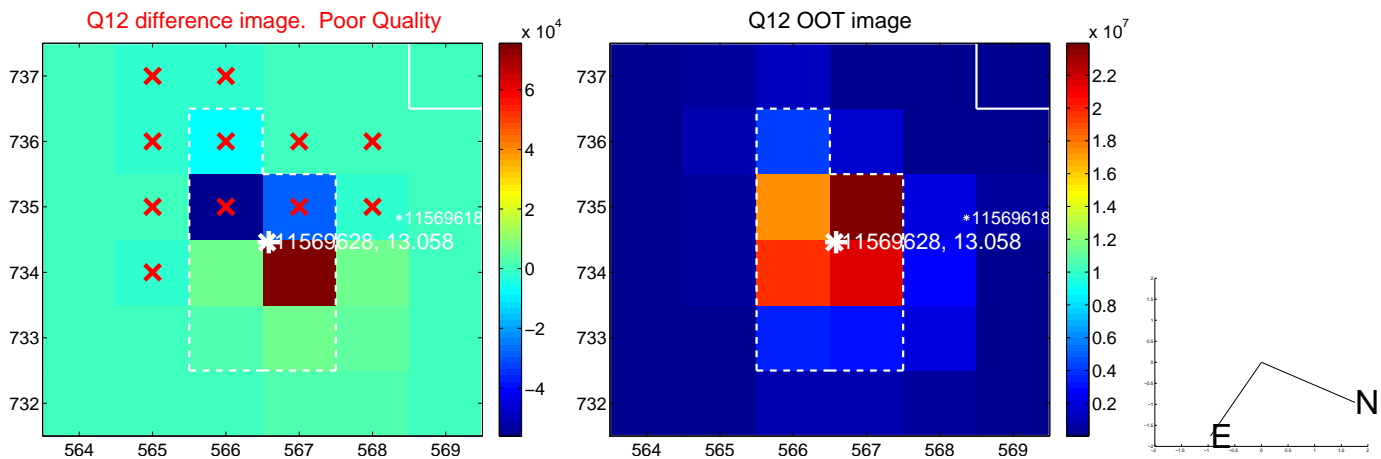
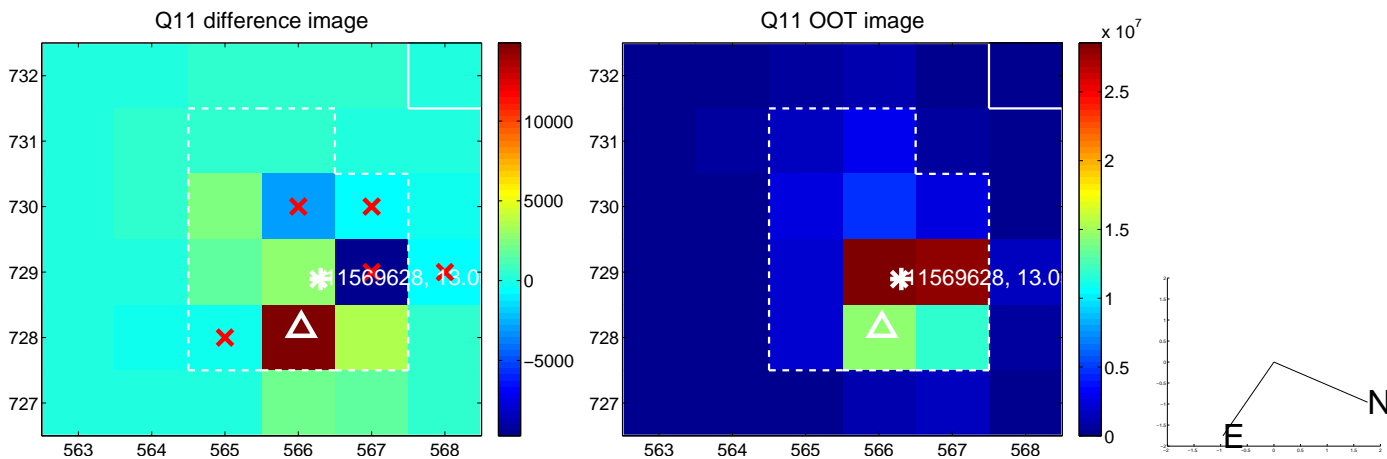
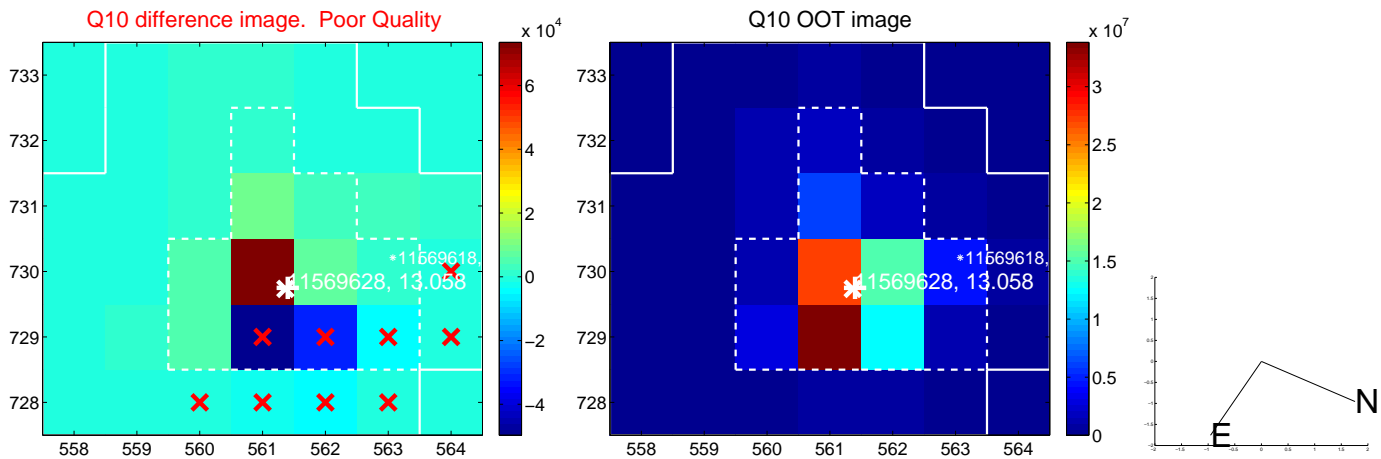
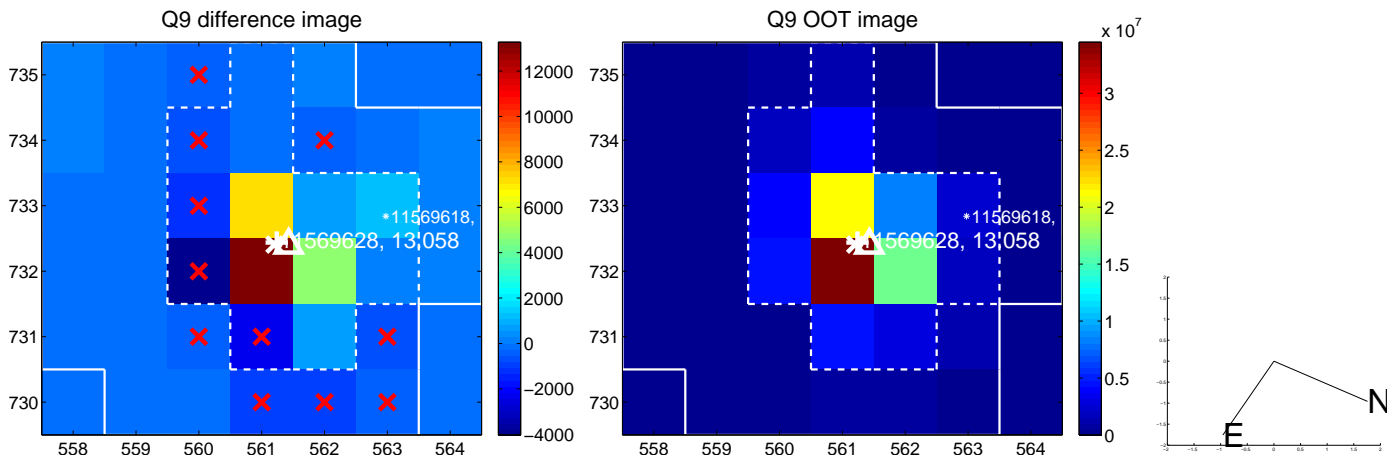
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



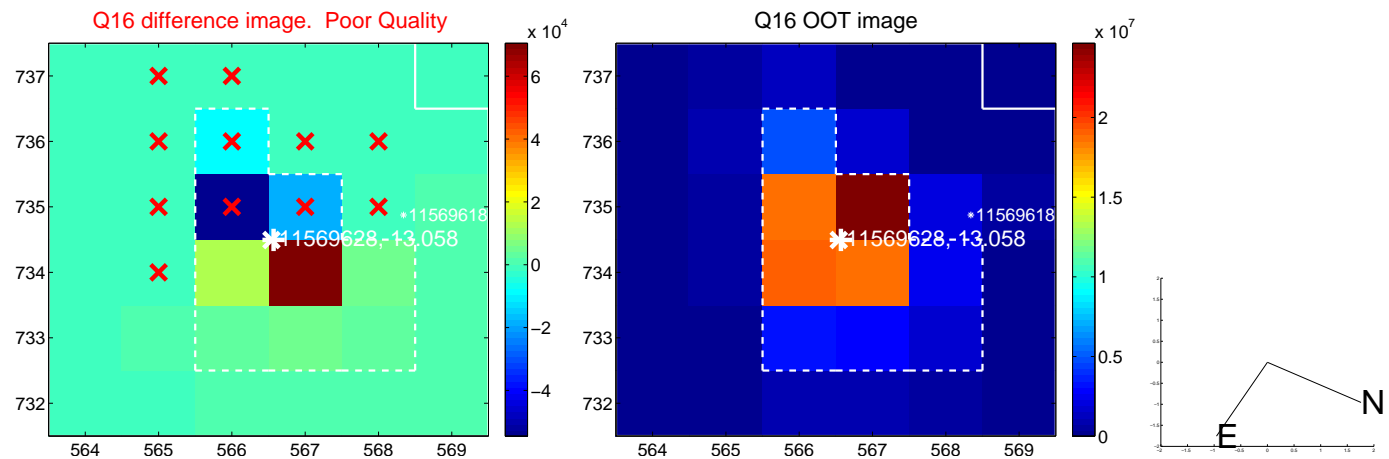
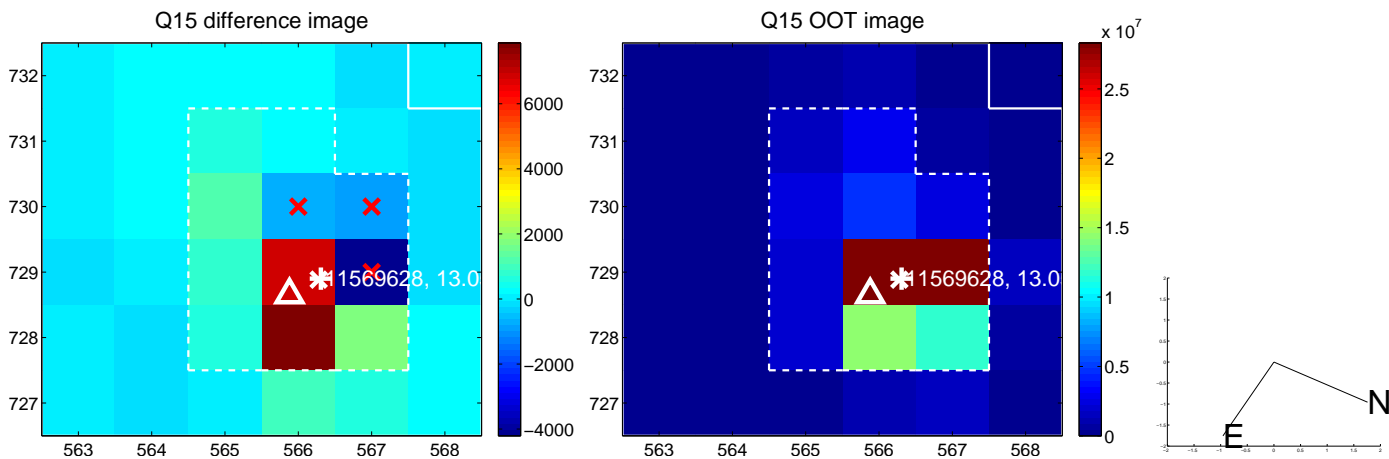
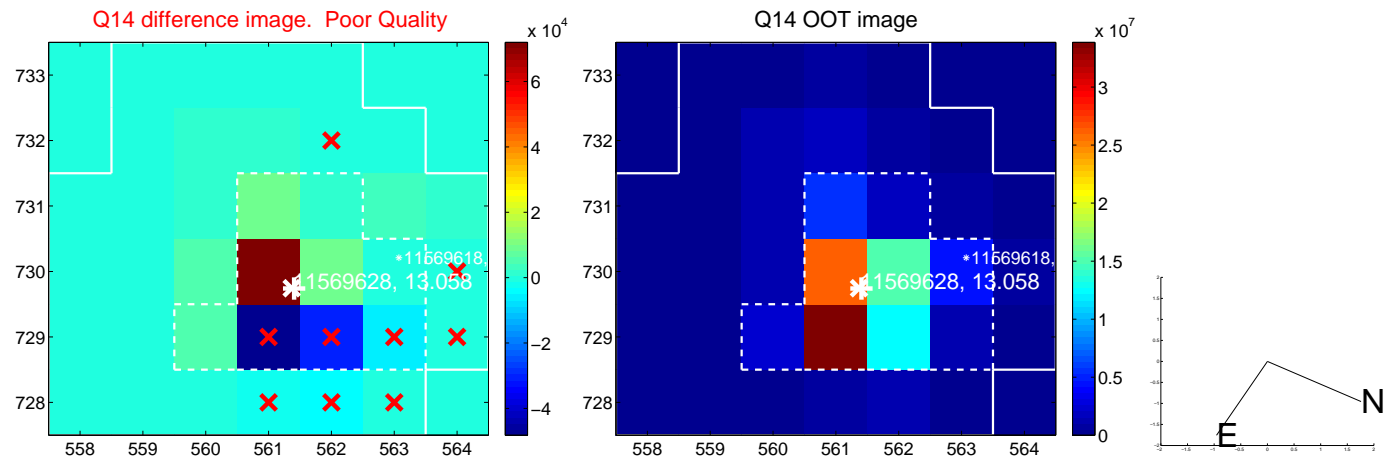
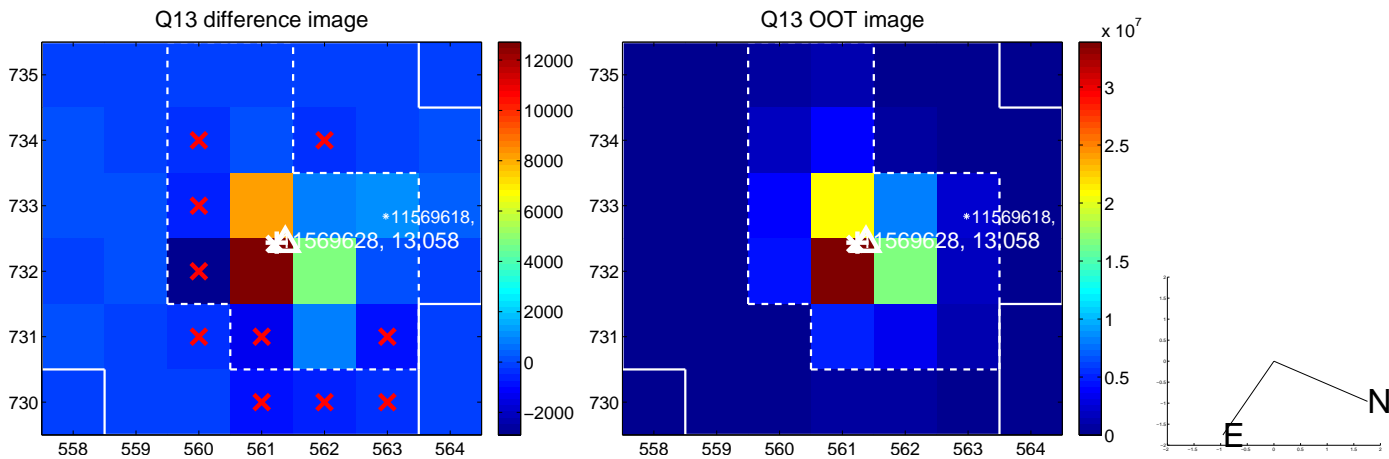
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



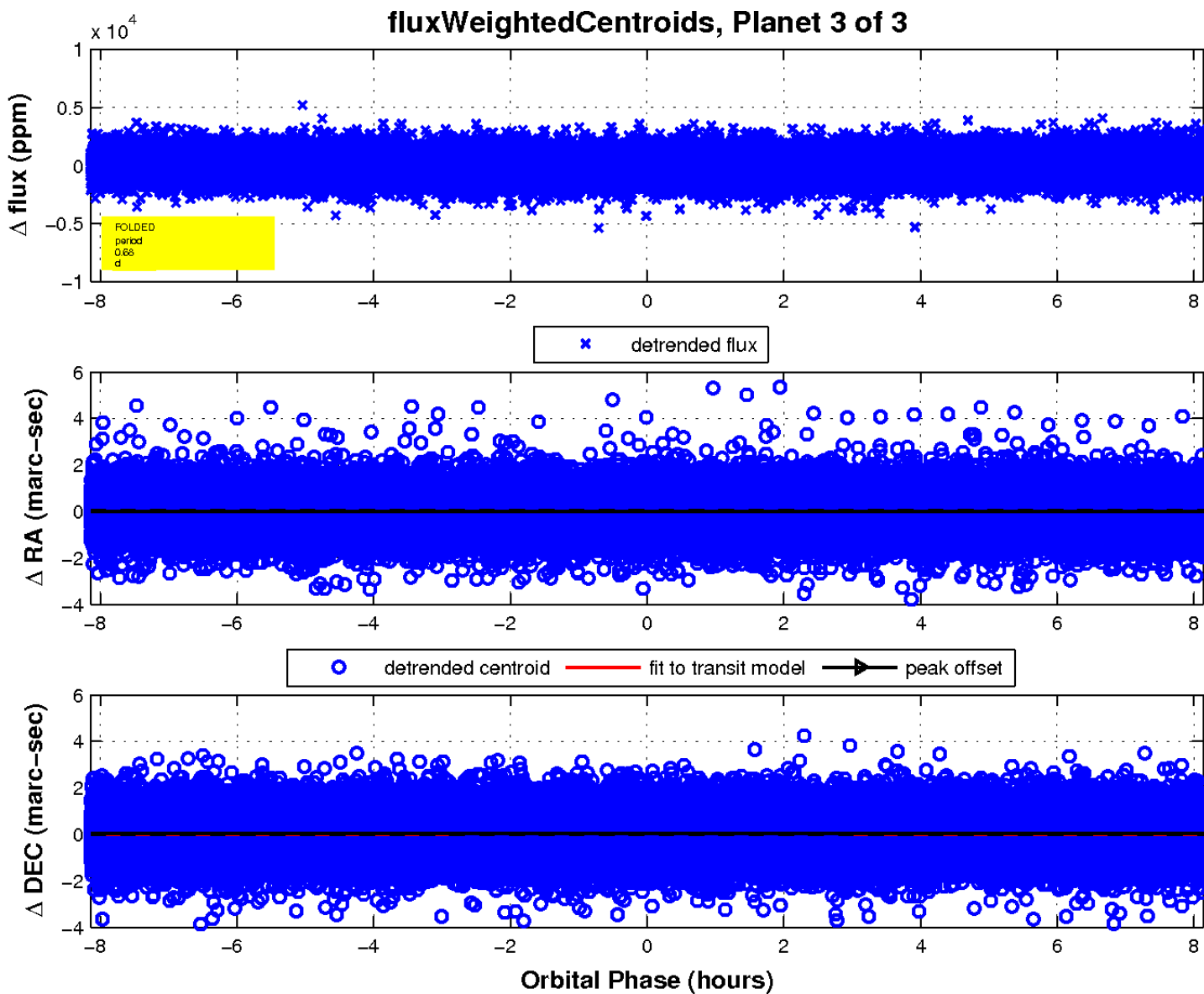
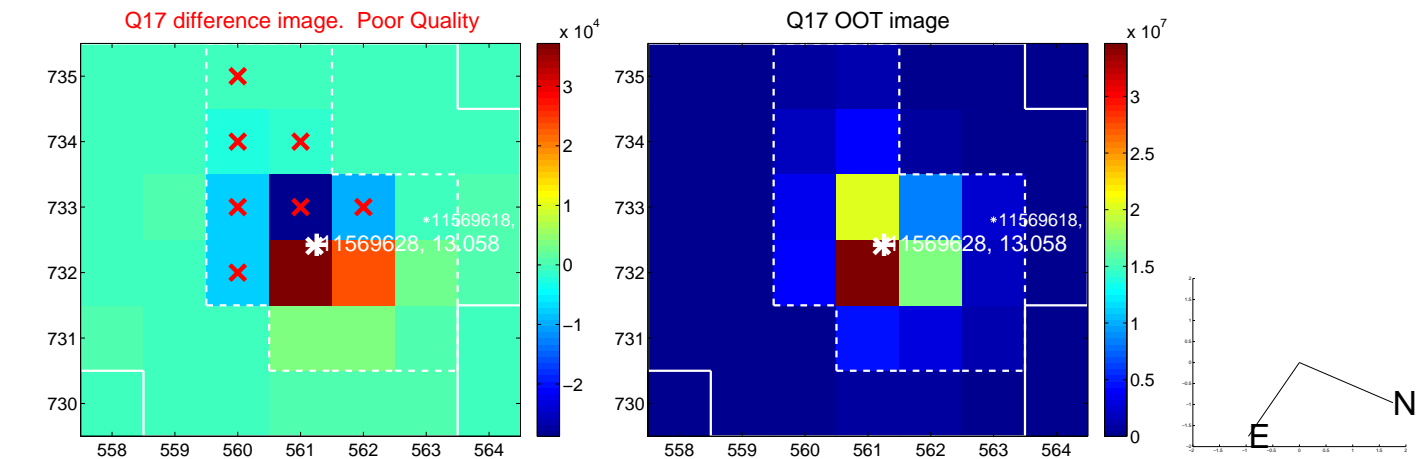
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

