

KIC 007281979

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})
007281979-01	OBS	No	0.566775	131.860975	15.1	4.261	10.9	12.4	1.99	5874	0.77	22393.92
007281979-02	OBS	No	12.952108	133.632474	165.8	1.263	9.1	11.8	1.99	5874	2.57	345.32
007281979-03	OBS	No	10.798999	140.443167	137.8	2.268	8.0	14.6	1.99	5874	2.76	440.05
007281979-04	OBS	No	5.776498	132.395369	652.8	1.500	14.1	-1.0	1.99	5874	5.09	1013.42
007281979-05	OBS	No	6.436181	135.591973	247.7	1.366	9.8	16.7	1.99	5874	3.17	877.35
007281979-06	OBS	No	8.608937	134.065177	282.3	0.944	11.4	17.4	1.99	5874	3.72	595.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281979-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_FEW_DIFFS—EPHEM_MATCH
007281979-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
007281979-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281979-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS
007281979-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007281979-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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.

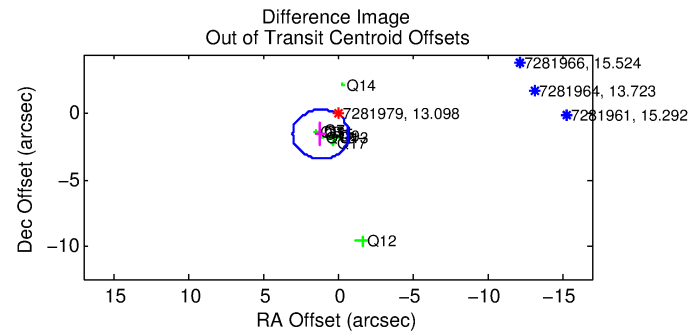
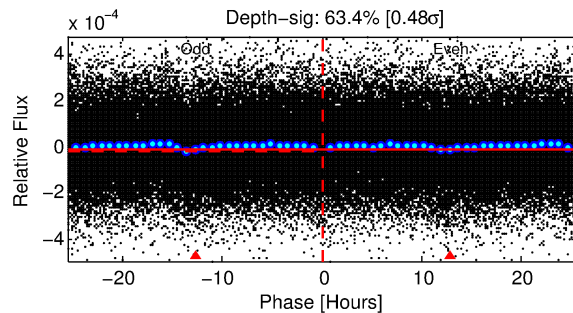
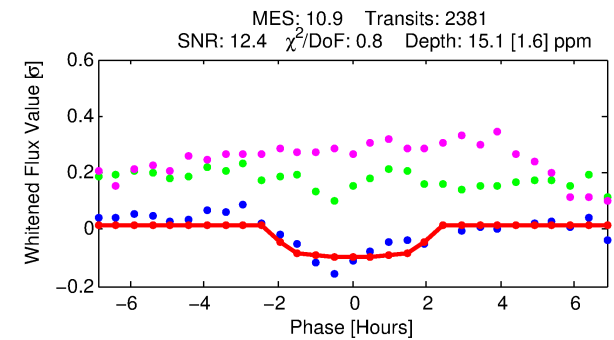
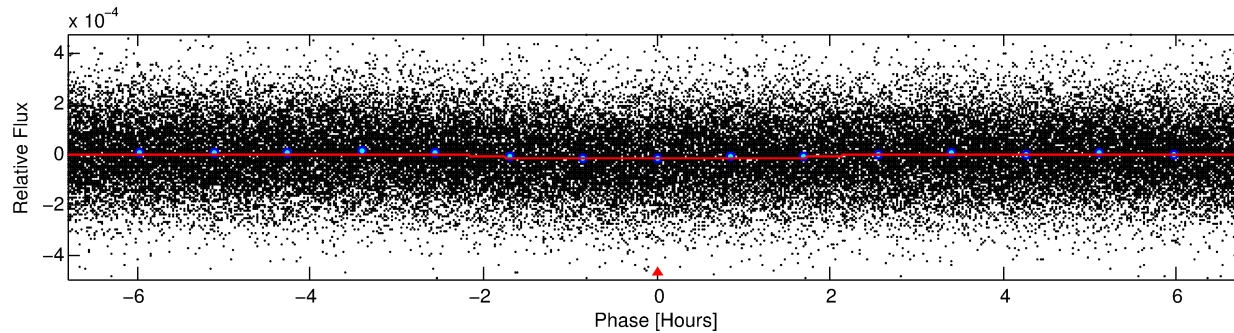
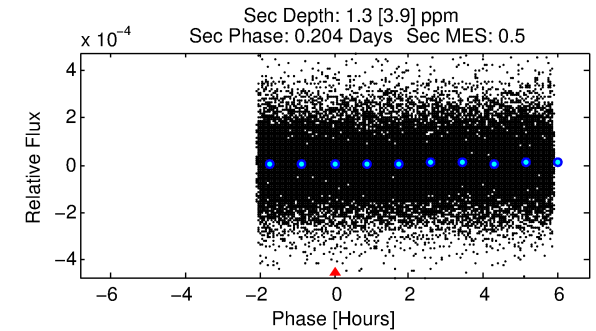
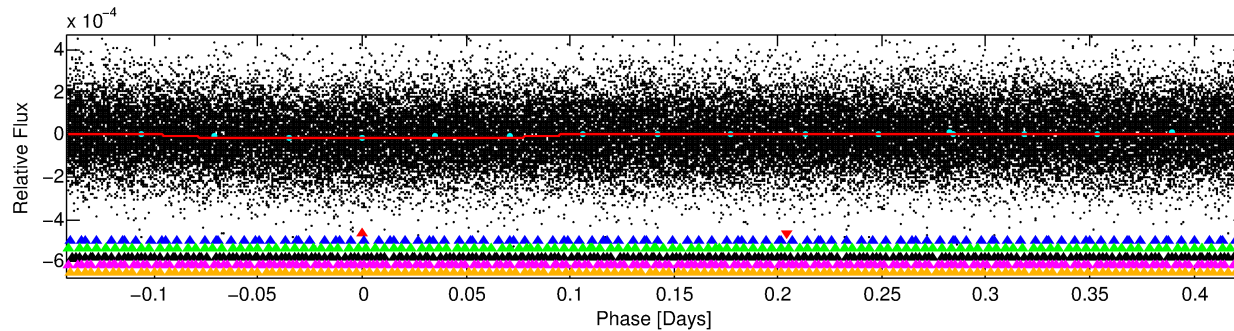
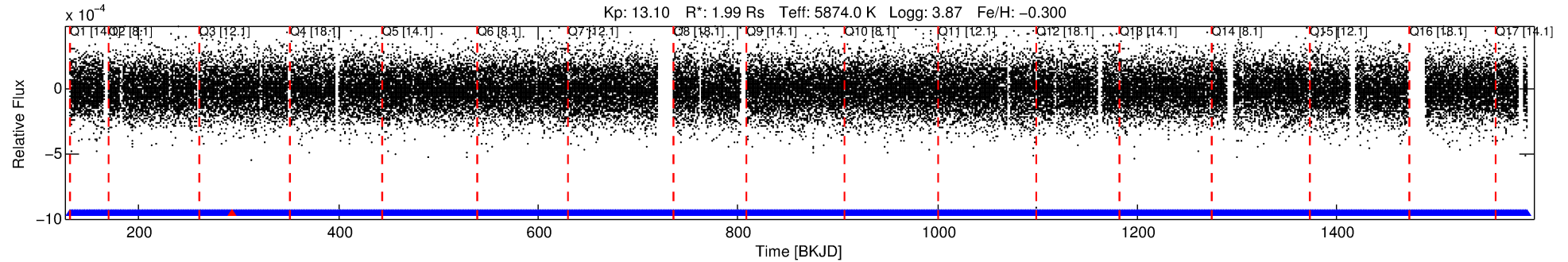
Ephemeris Match Information For 007281979-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (μ)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007281979-01	7281979	RR-Lyr-pri	7198959	1:1	1091.7	93	258	7.86	13.10	41553.00	Direct-PRF	0	4.64	15.67

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7281979 Candidate: 1 of 6 Period: 0.567 d



DV Fit Results:

Period = 0.56677 [0.00001] d
Epoch = 131.8610 [0.0035] BKJD
Rp/R* = 0.0036 [0.0036]
a/R* = 1.20 [1.78]
b = 0.11 [44.56]
Seff = 22393.92 [12253.65]
Teq = 3119 [427] K
Rp = 0.77 [0.83] Re
a = 0.0137 [0.0046] AU
Ag = 0.22 [0.83] [-0.95σ]
Teffp = 3297 [3087] K [0.06σ]

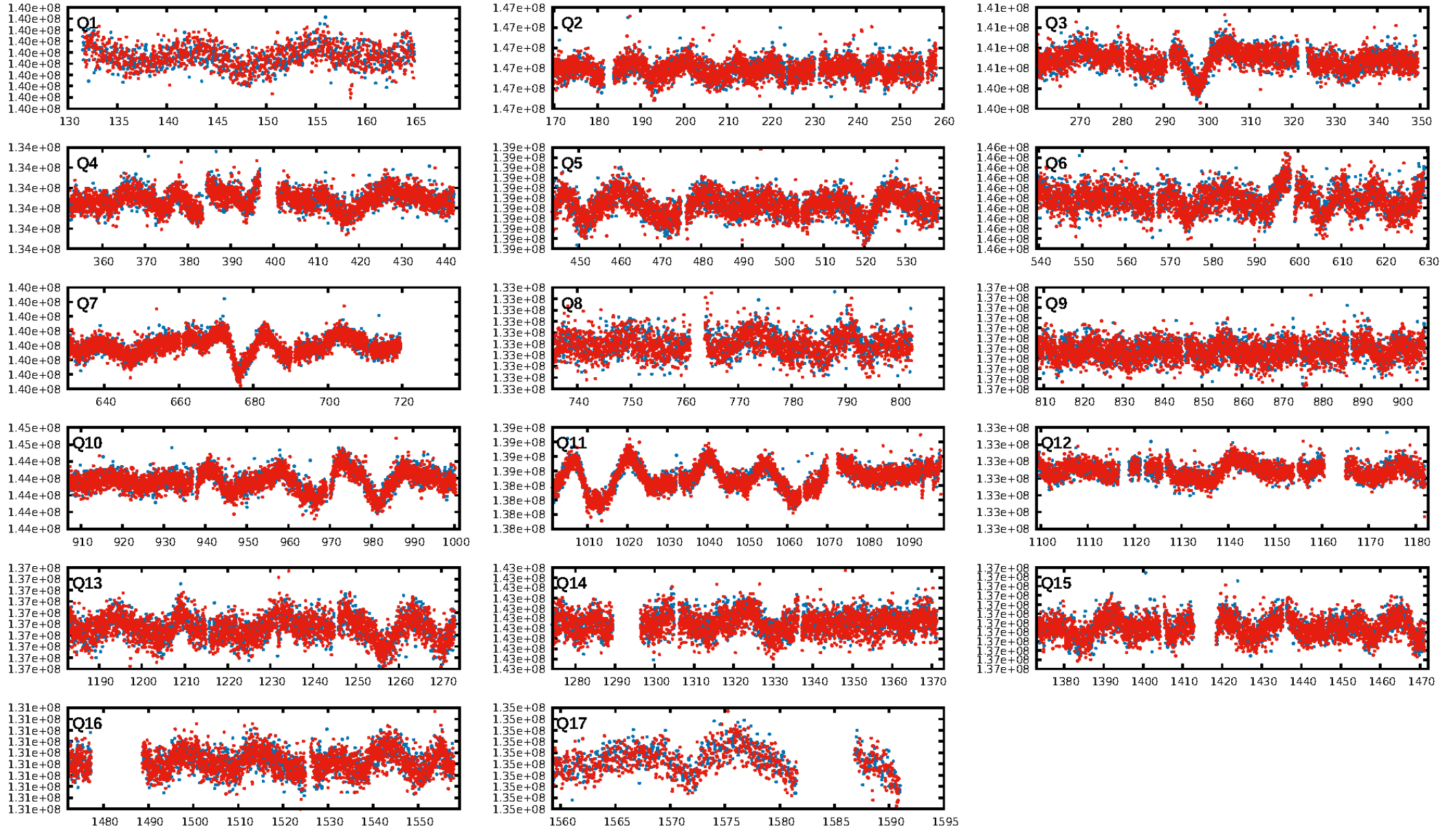
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [27.68σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2272/2274]
GhostDiagnostic-chr: 0.4433
Centroid-sig: 0.0%
Centroid-so: 5.707 arcsec [7.47σ]
OotOffset-rm: 1.920 arcsec [3.08σ]
OotOffset-st: 1/4/3/3 [11]
KicOffset-rm: 1.716 arcsec [2.82σ]
KicOffset-st: 1/4/3/3 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 1.00 [17/17]

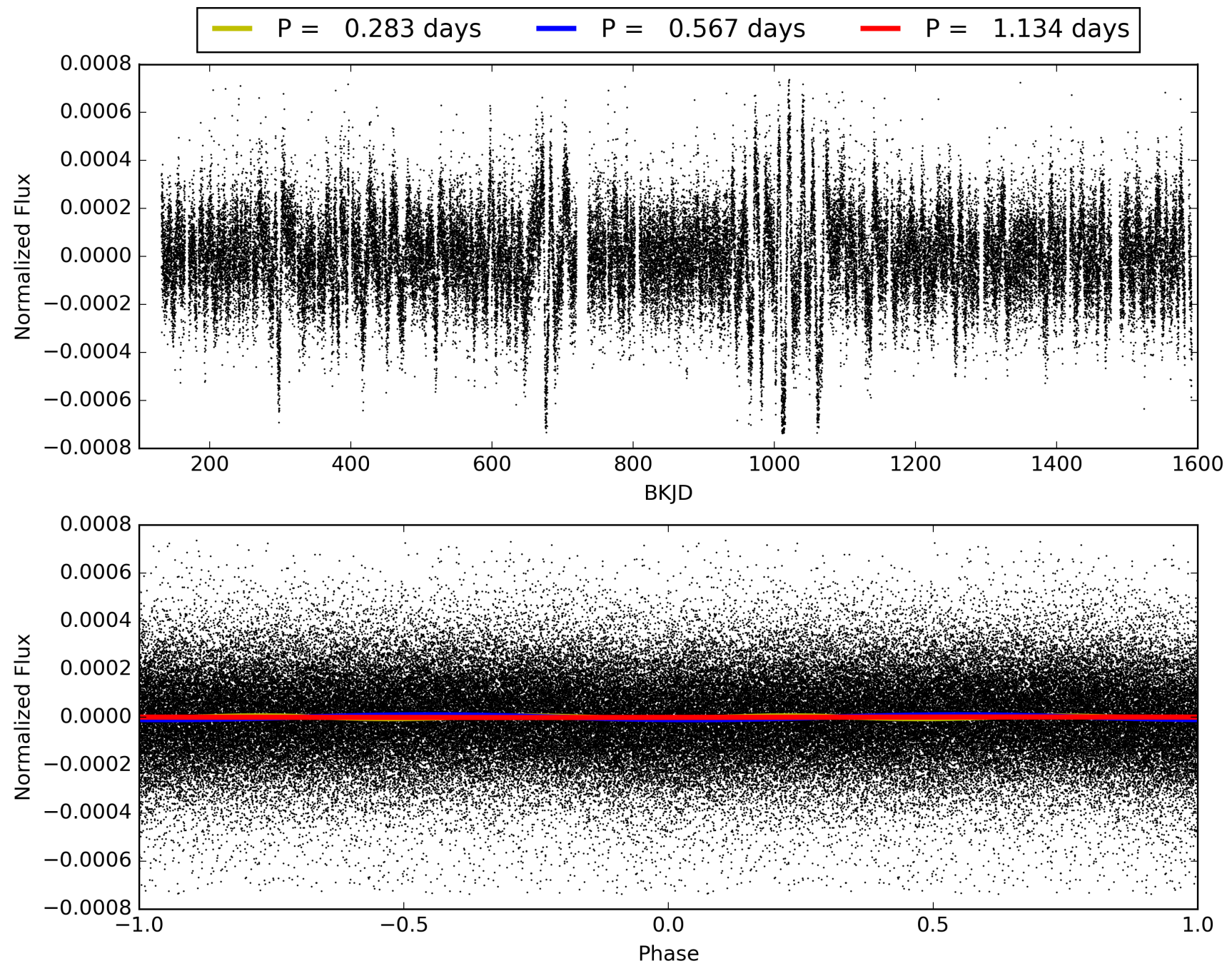
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:22:09 Z

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

TCE 007281979-01, PDC Light Curves

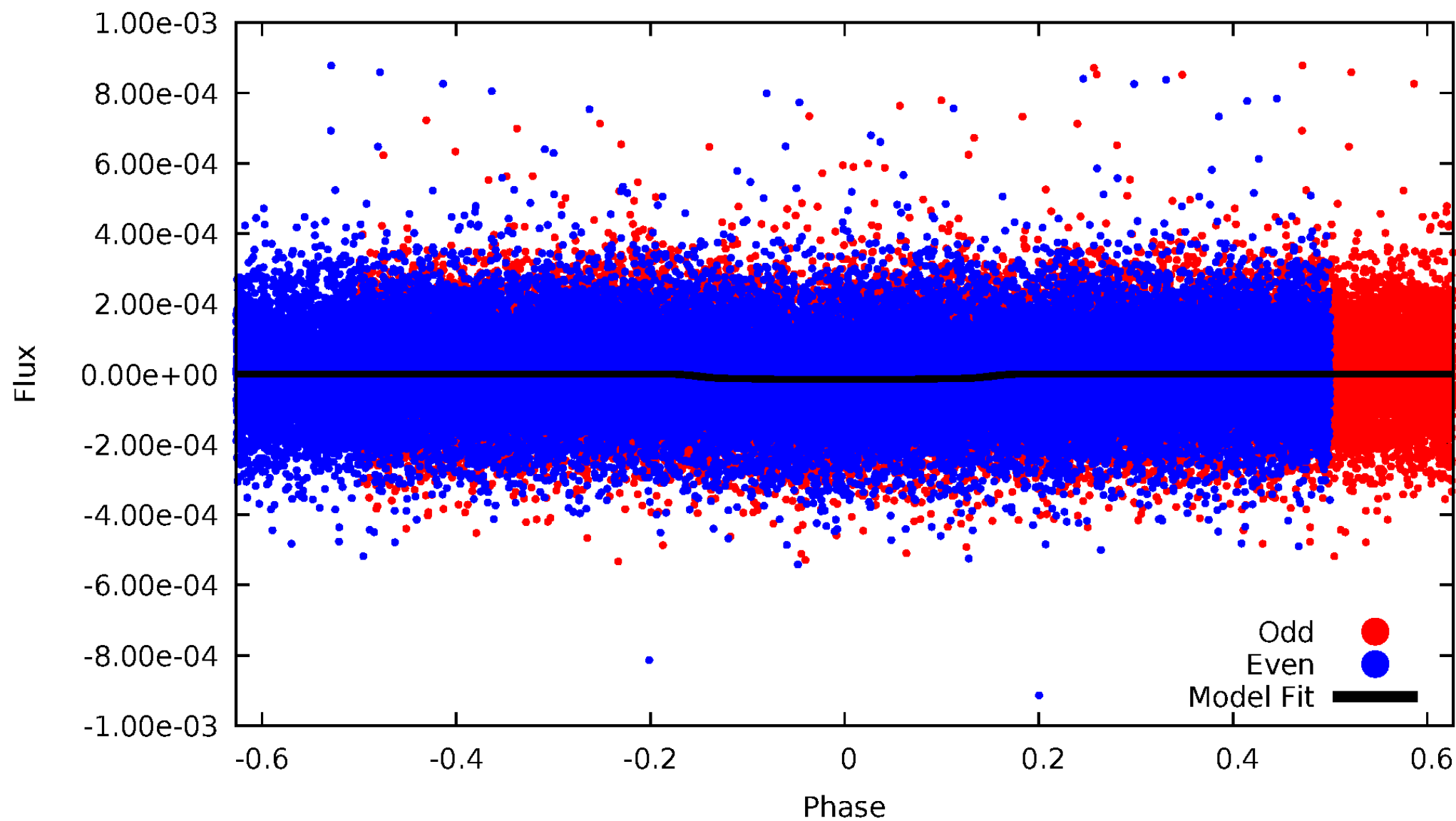


TCE 007281979-01



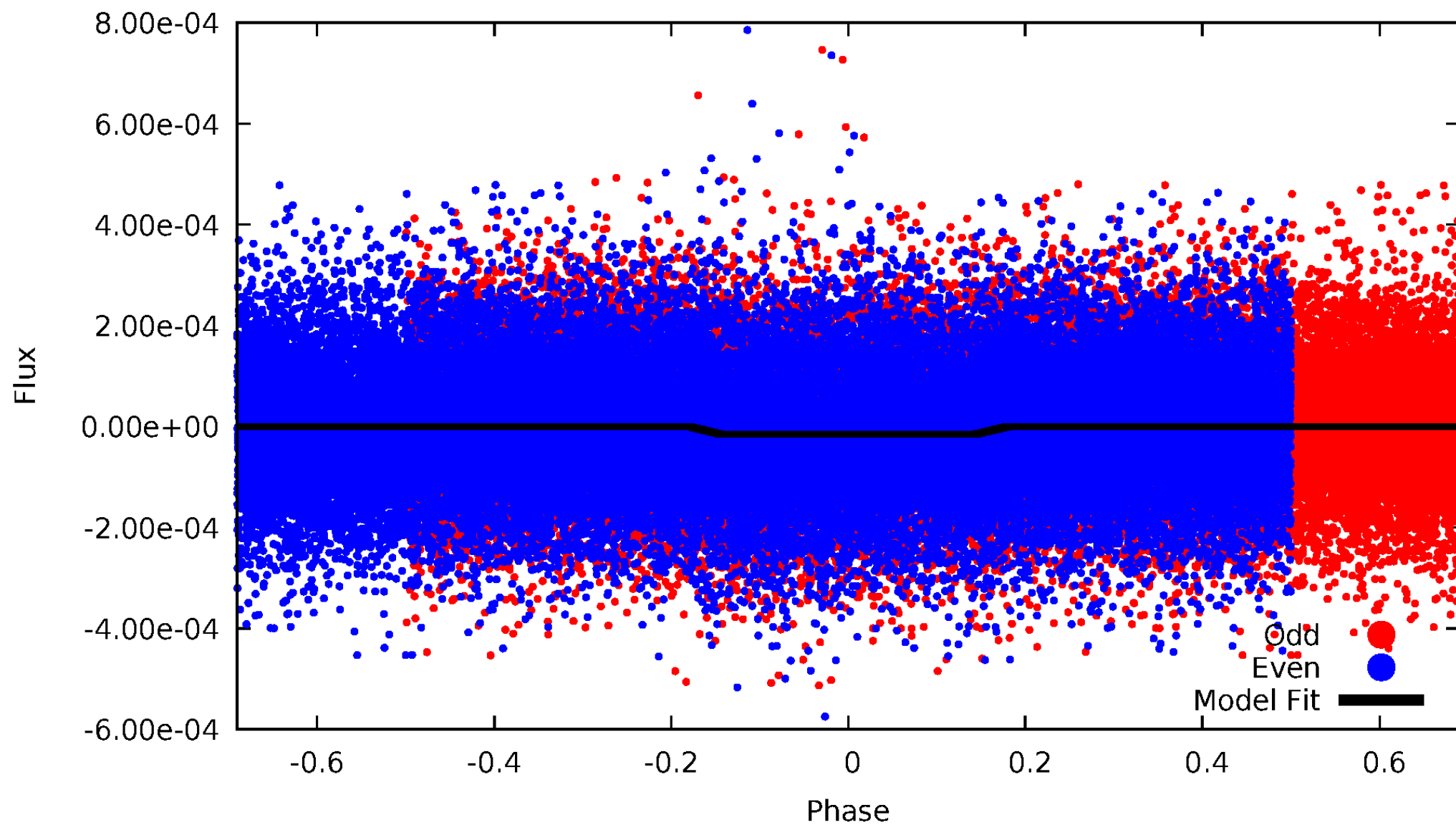
DV Odd/Even

TCE 007281979-01

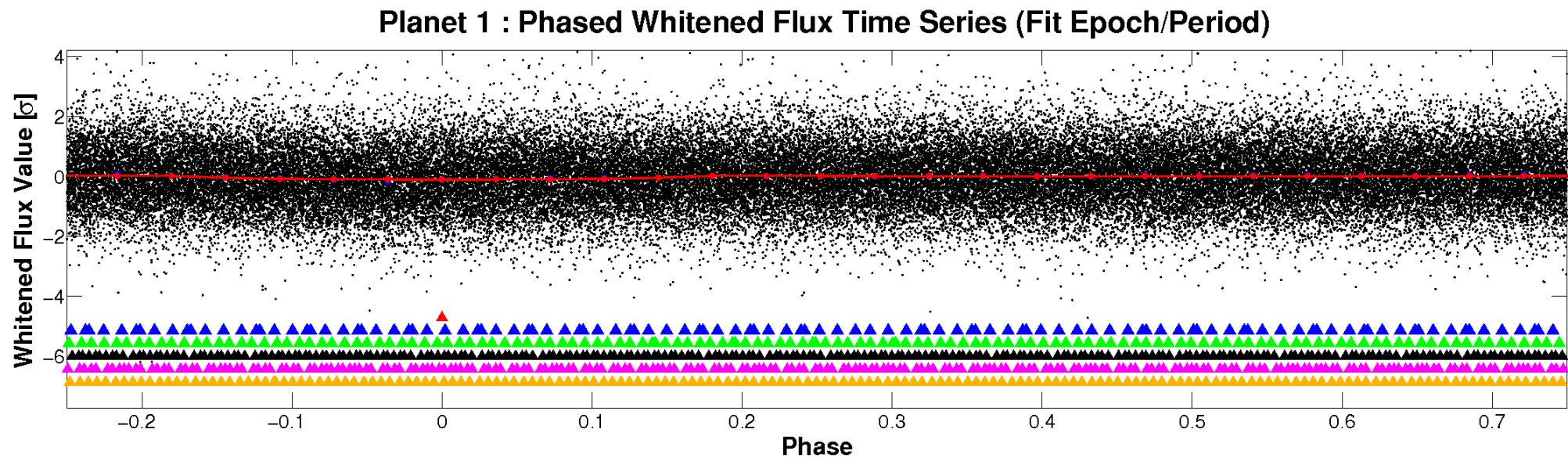
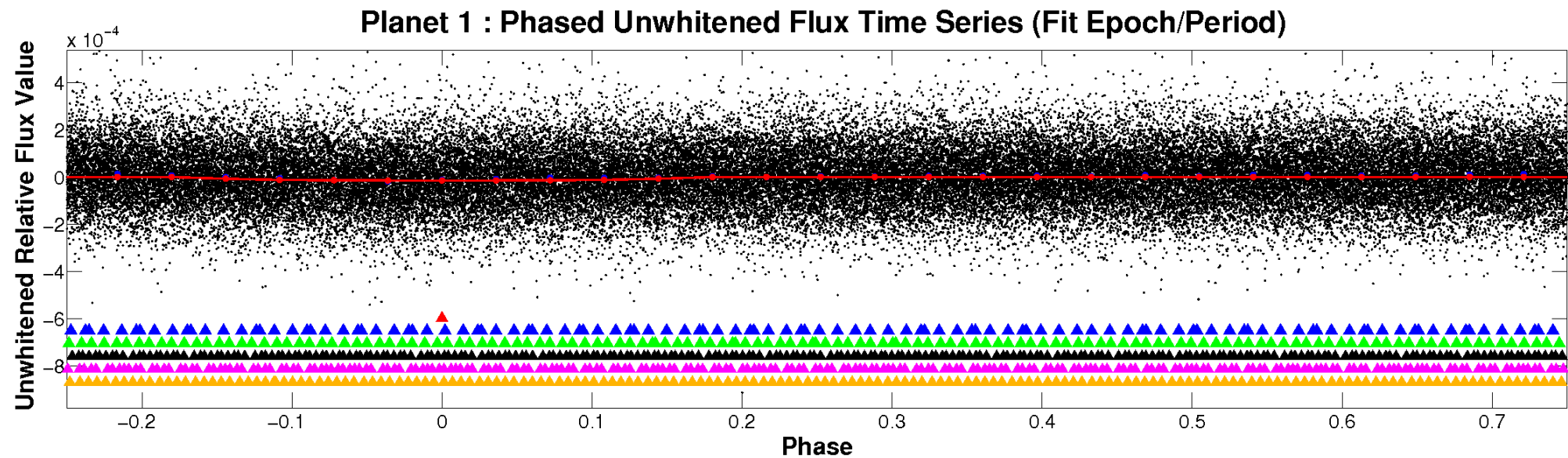


ALT Odd/Even

TCE 007281979-01

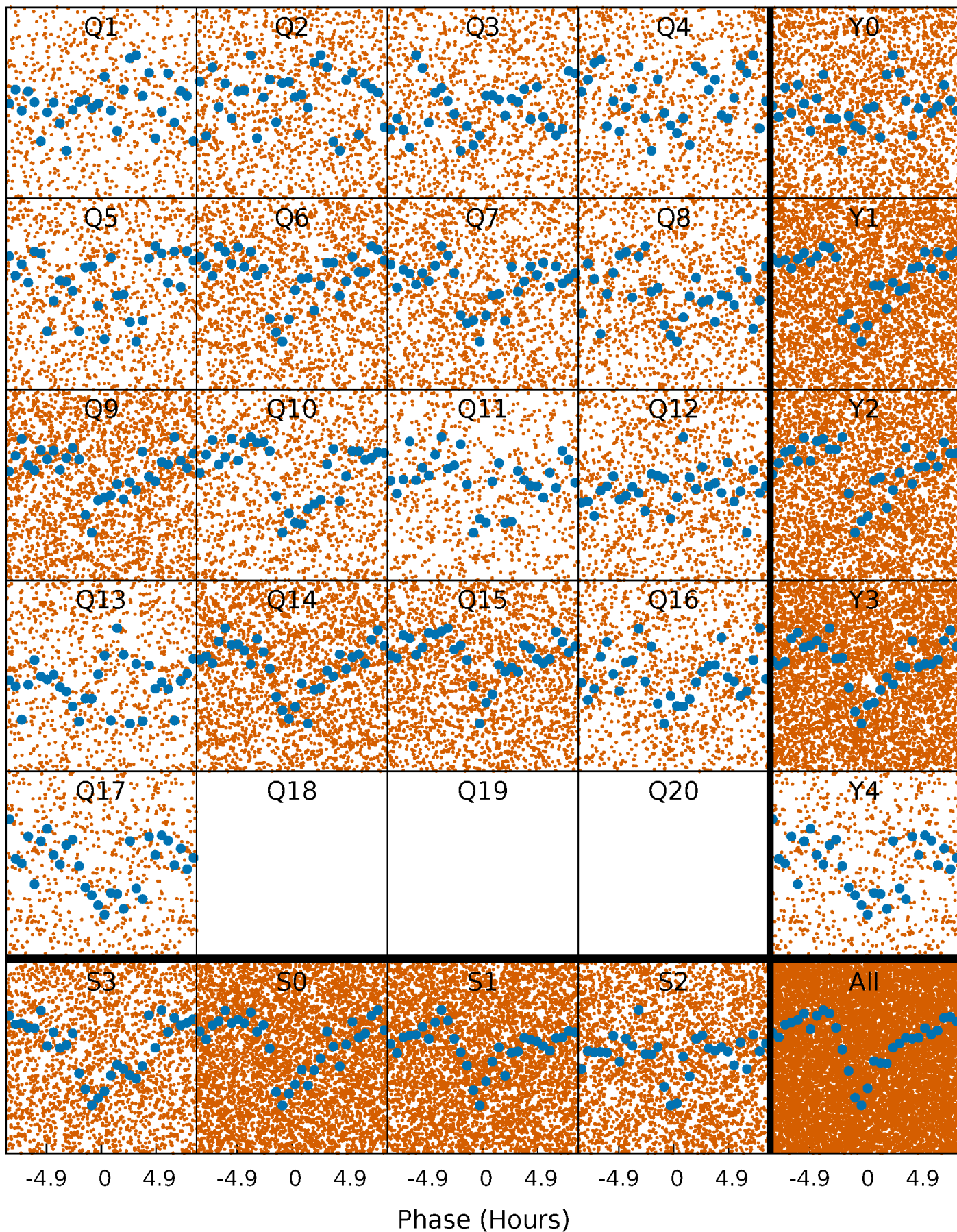


Non-Whitened Vs. Whitened Light Curve



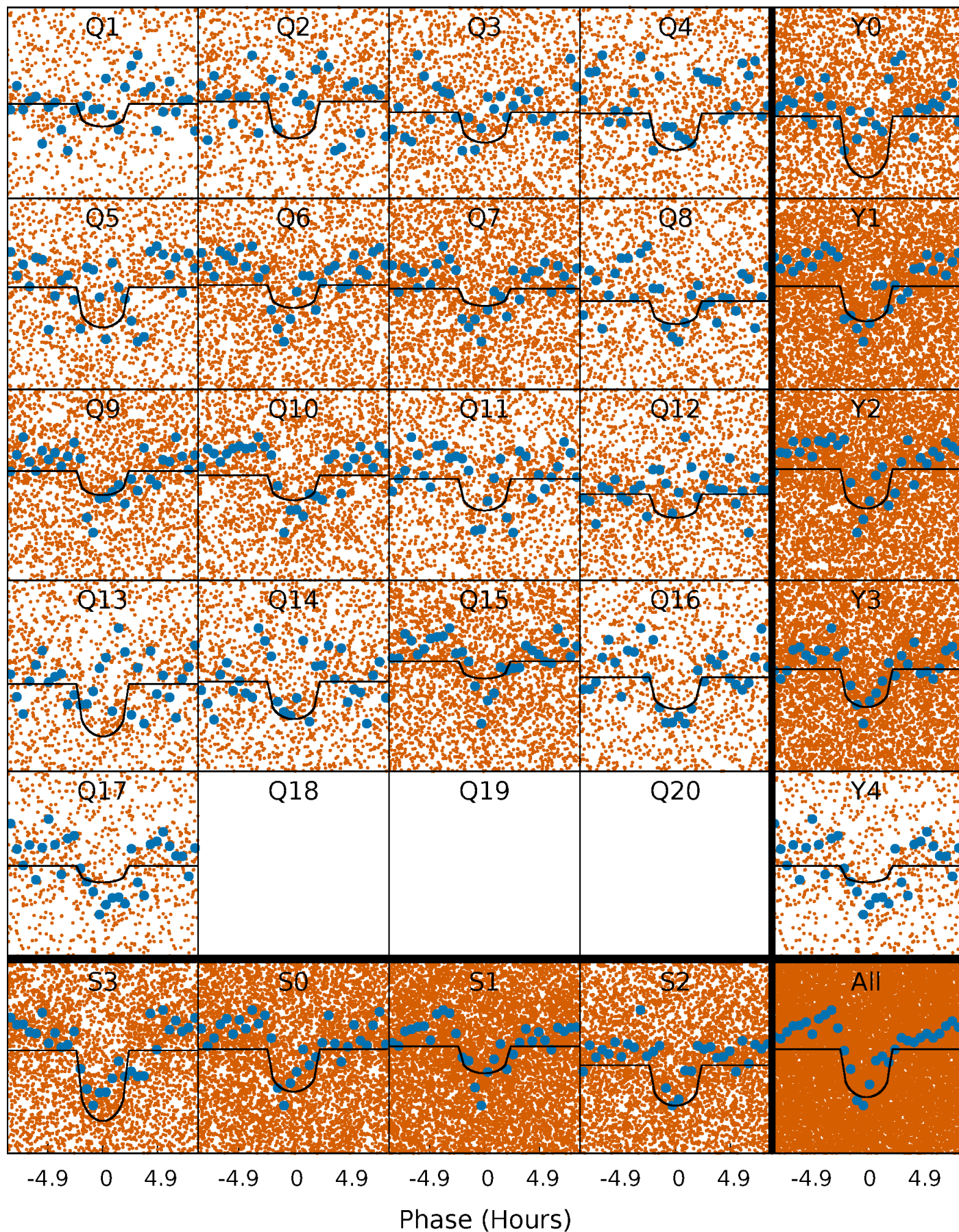
PDC Quarter-Phased Transit Curves

TCE 007281979-01 P= 0.566775 Days $T_0=131.860975$ (BKJD)



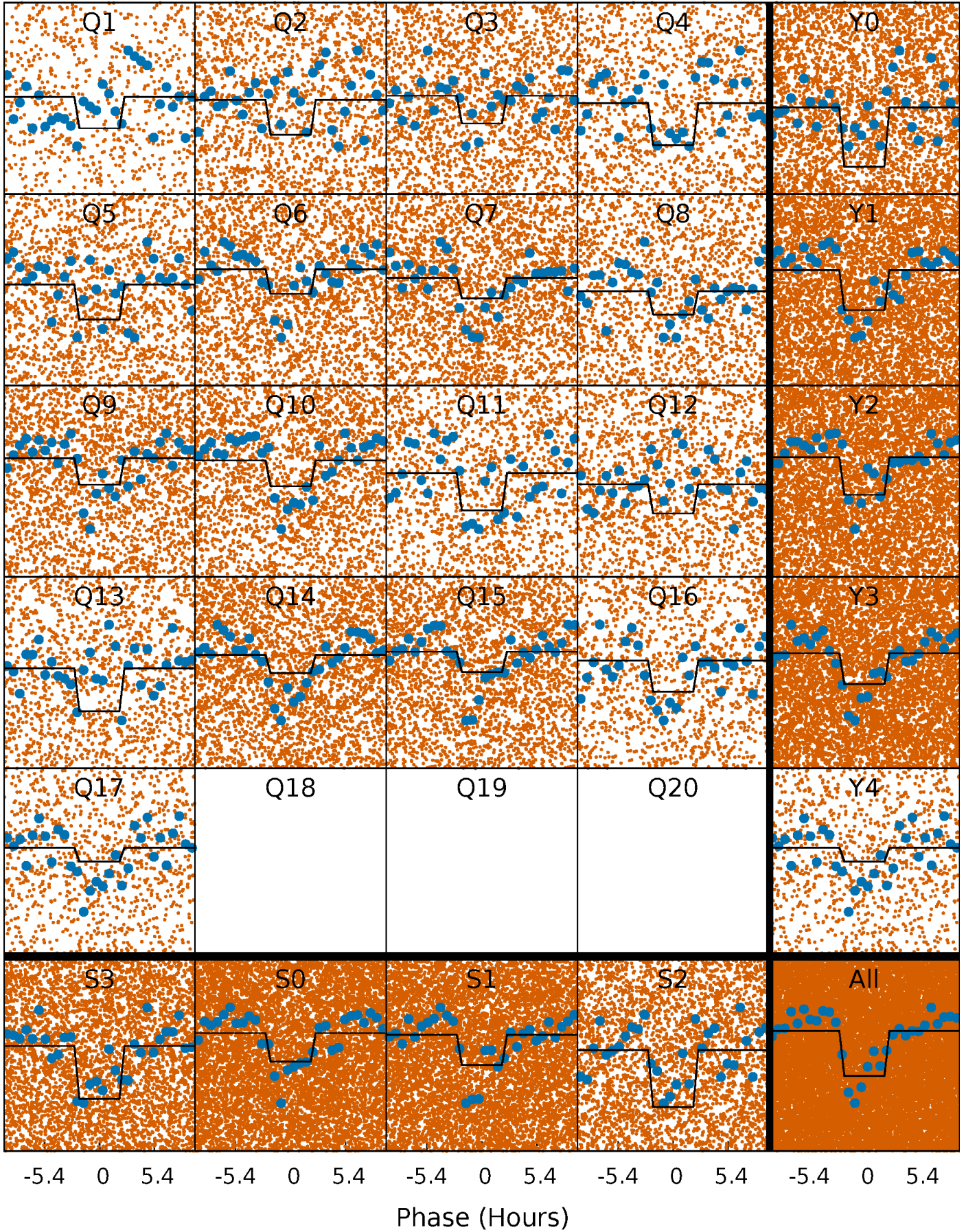
DV Quarter-Phased Transit Curves

TCE 007281979-01 P= 0.566775 Days $T_0=131.860975$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

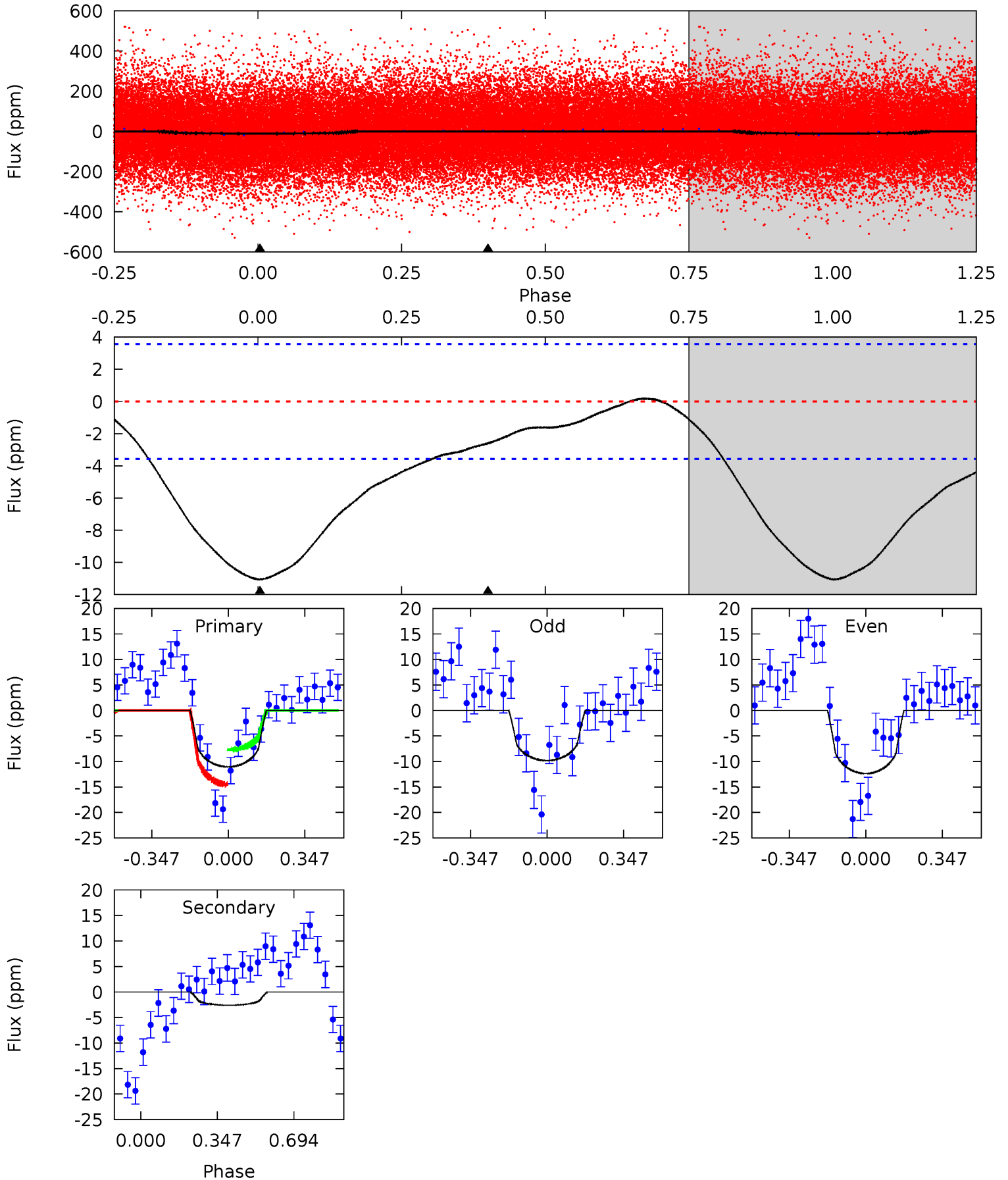
TCE 007281979-01 P= 0.566801 Days $T_0=131.840309$ (BKJD)



DV Model-Shift Uniqueness Test

007281979-01, P = 0.566775 Days, E = 131.294200 Days

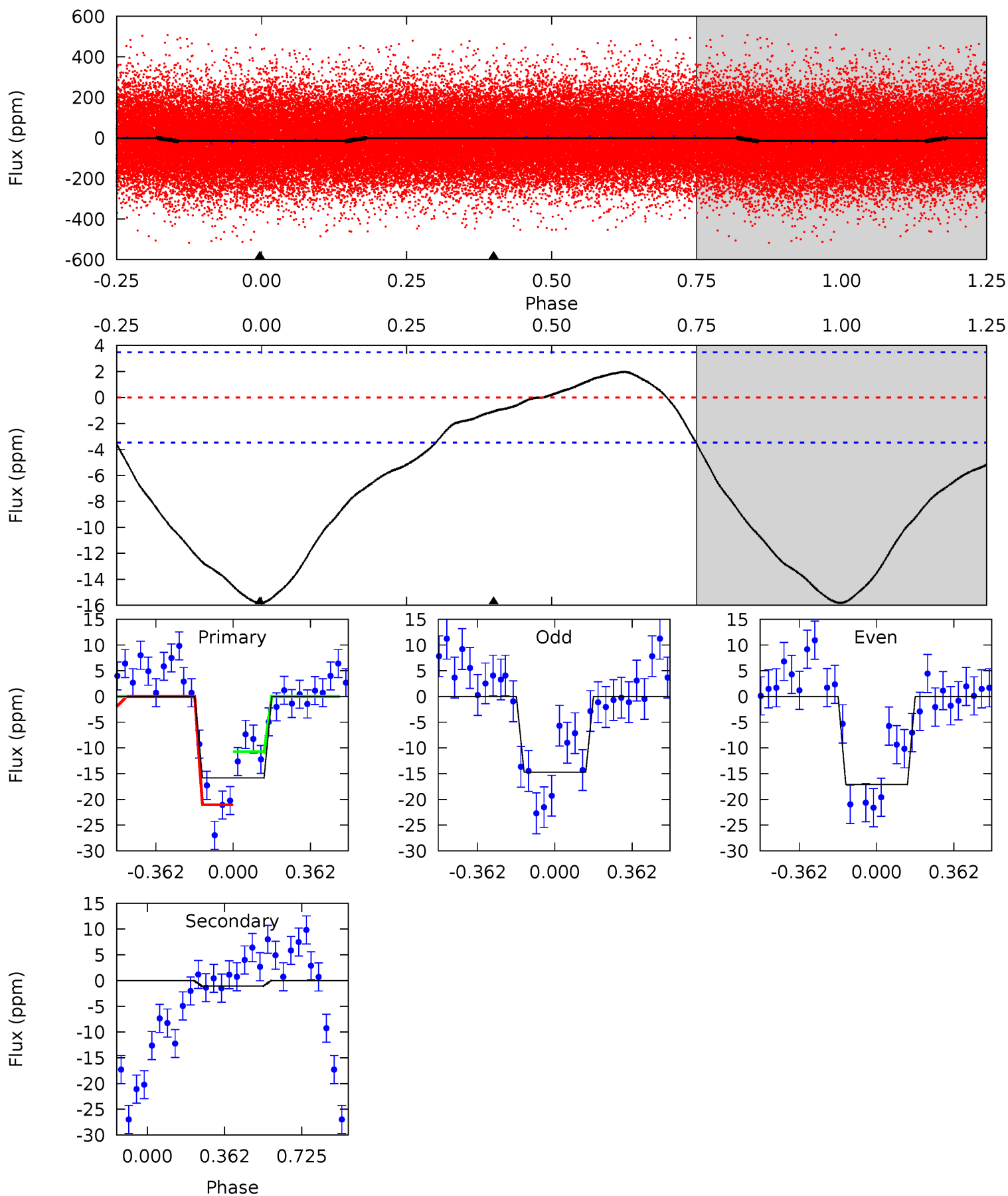
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	3.13	0	0	4.30	0.94	0.50	13.3	13.3	3.13	3.13	1.53	0.98	0.02	4.06



Alt Model-Shift Uniqueness Test

007281979-01, P = 0.566801 Days, E = 131.273508 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.5	1.34	0	0	4.29	0.91	1.83	19.5	19.5	1.34	1.34	1.49	1.01	0.11	6.36



Stellar Parameters For KIC 007281979

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5874^{+176}_{-132}	$3.872^{+0.315}_{-0.105}$	$-0.300^{+0.350}_{-0.250}$	$1.991^{+0.364}_{-0.676}$	$1.076^{+0.175}_{-0.175}$	$0.192^{+0.386}_{-0.073}$
	+3%/-2%	+8%/-3%	+117%/-83%	+18%/-34%	+16%/-16%	+201%/-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 007281979-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 1	$0.88^{+0.69}_{-0.55}$	4295^{+256}_{-385}	2804^{+2783}_{-6456}	$0.345^{+1.962}_{-0.244}$
Alt.	-1 ± 1	$0.92^{+0.72}_{-0.54}$	4300^{+260}_{-388}	-3498^{+7651}_{-412}	$0.114^{+0.695}_{-0.093}$

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

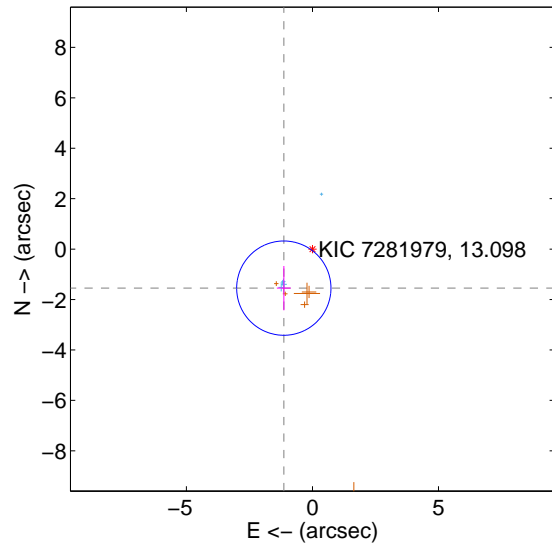
Supplemental centroid analysis for 007281979-01. Kepler magnitude: 13.10. Transit SNR 12.37

There are 5 quarters with good PRF difference image offsets

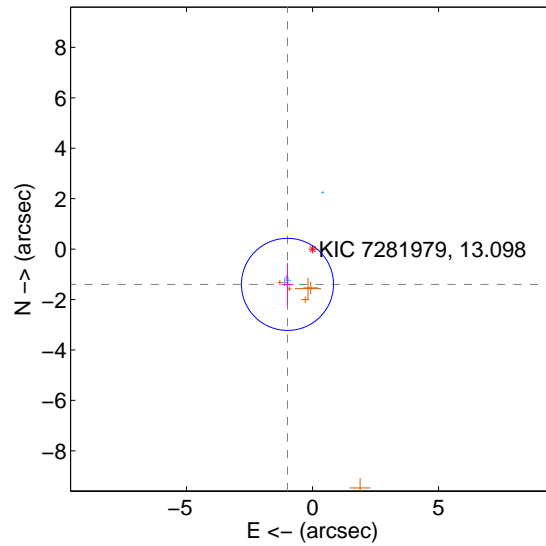
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.920 ± 0.623	3.08	1.135 ± 0.276	-1.548 ± 0.878
PRF-fit source offset from KIC position	1.716 ± 0.609	2.82	0.993 ± 0.239	-1.399 ± 0.843
photometric centroid source offset	5.71 ± 0.76	7.47	0.73 ± 0.90	-5.66 ± 0.76

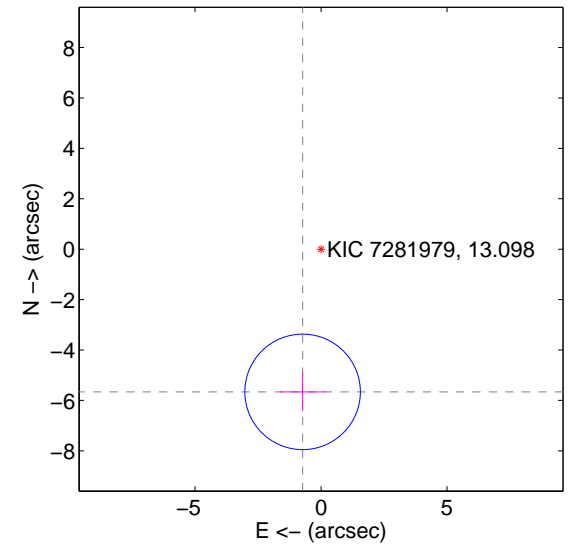
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

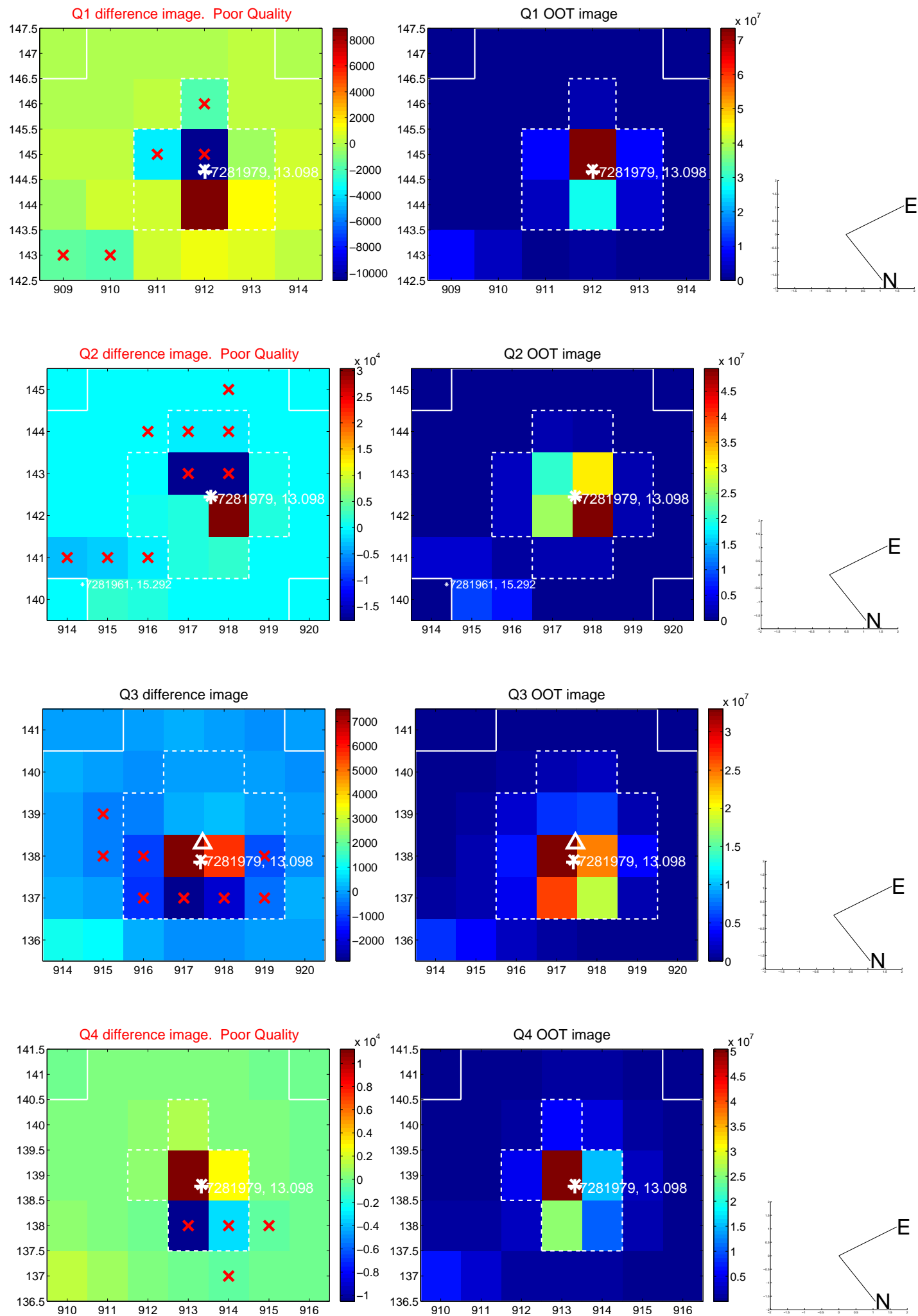


offset from photometric centroids

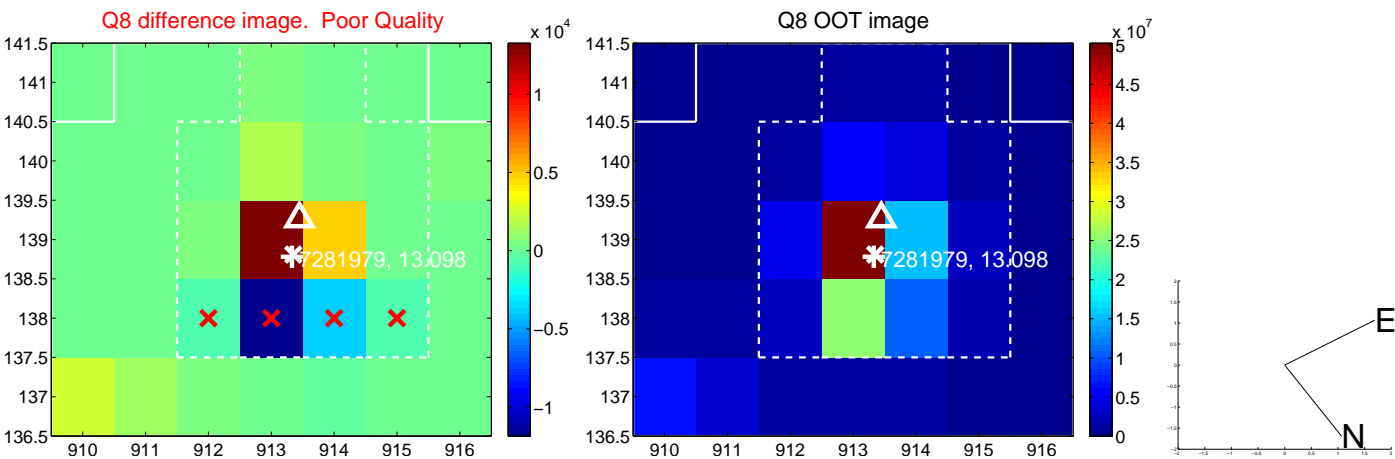
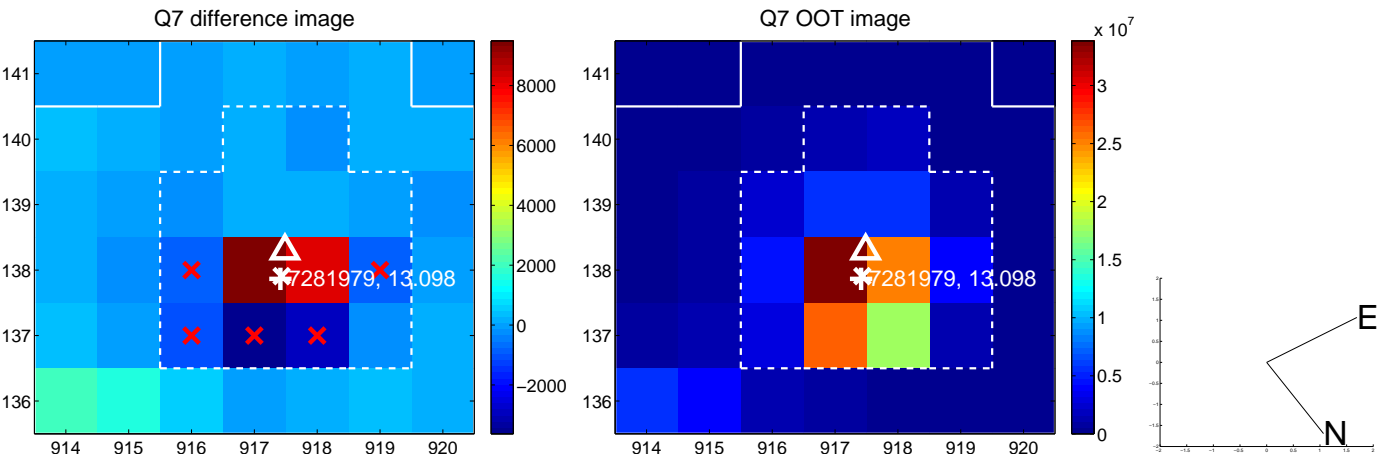
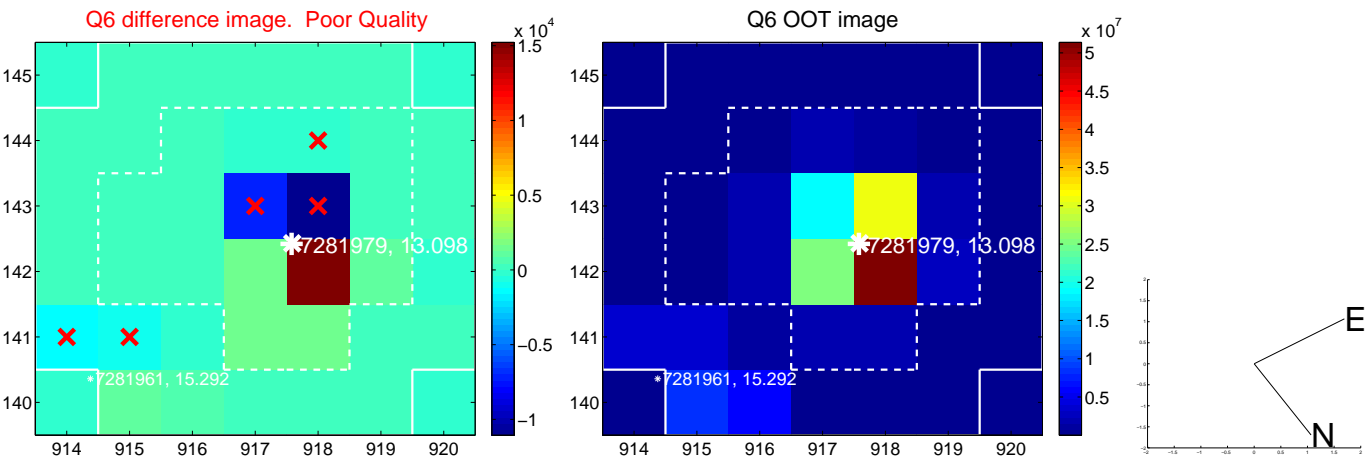
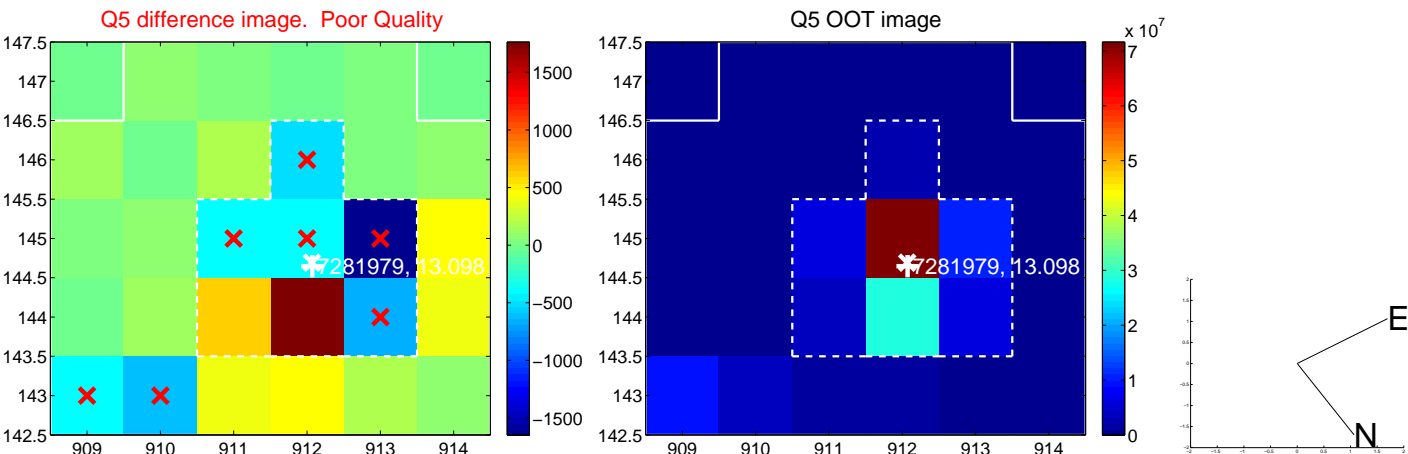


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

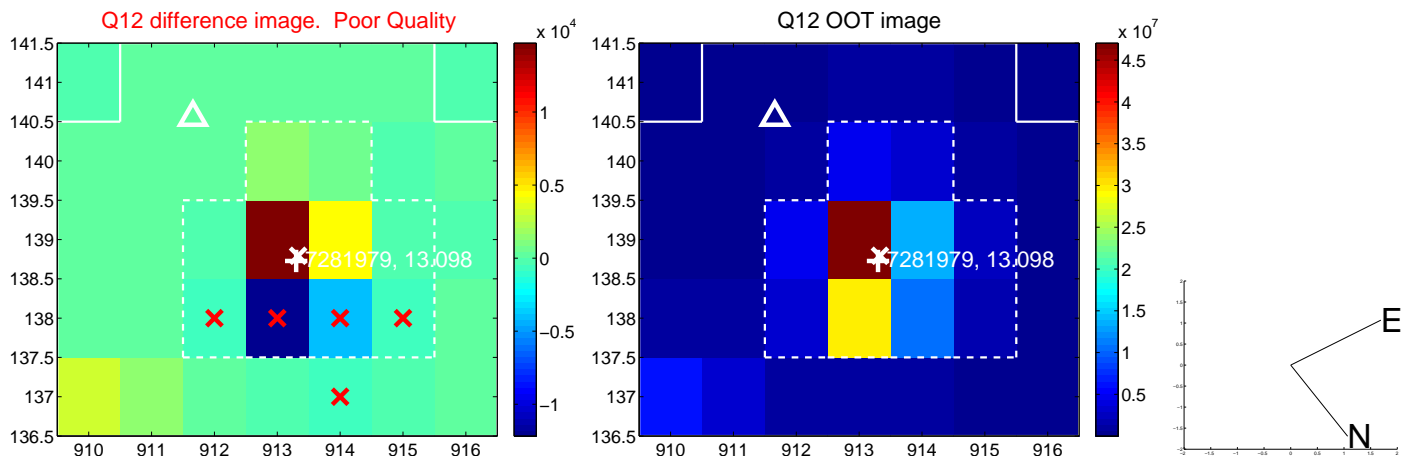
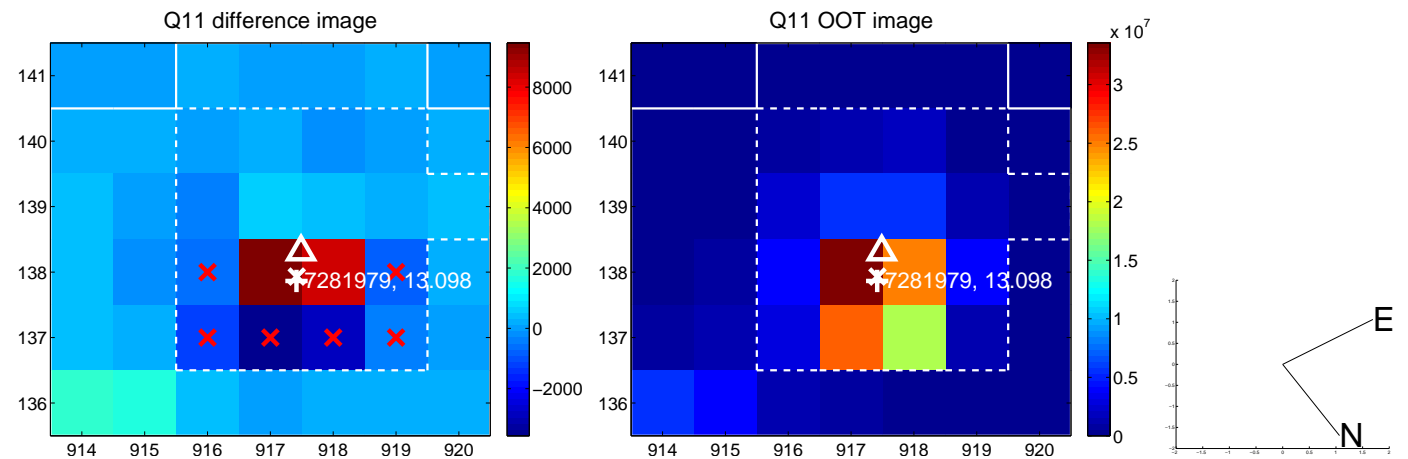
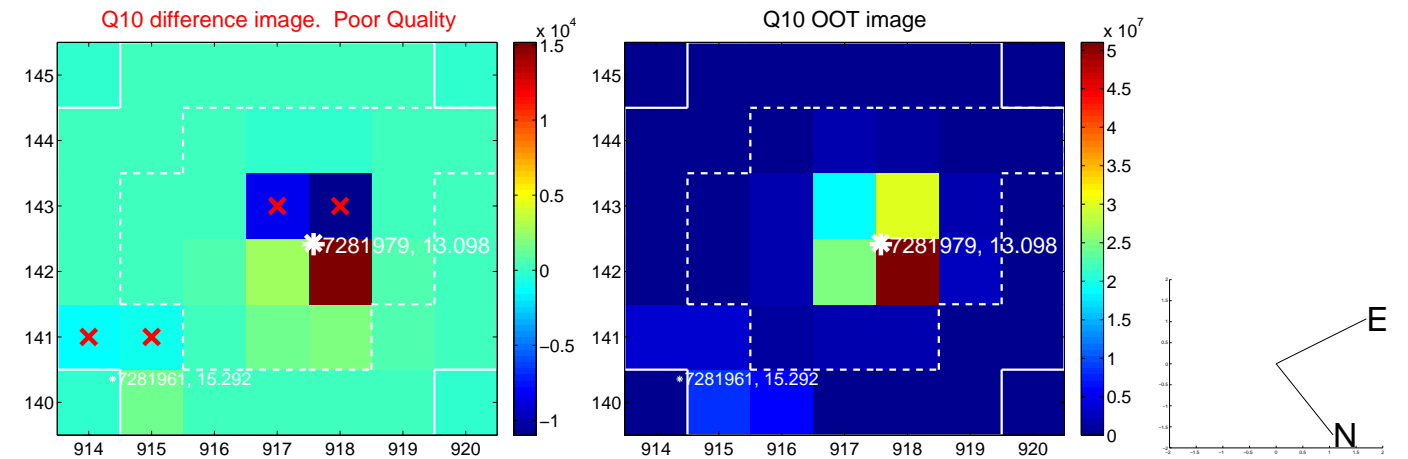
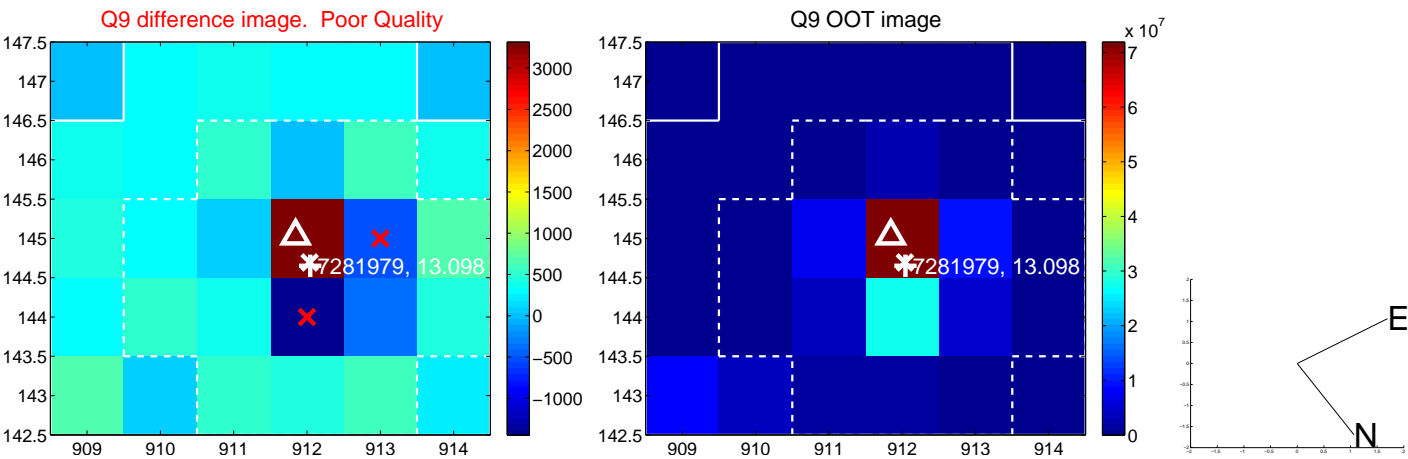
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



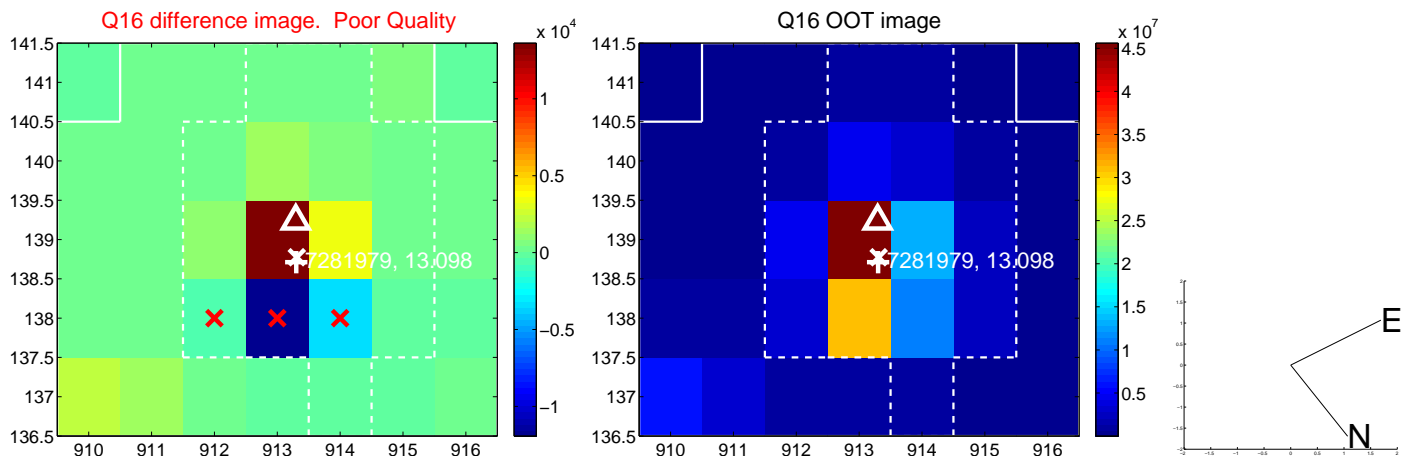
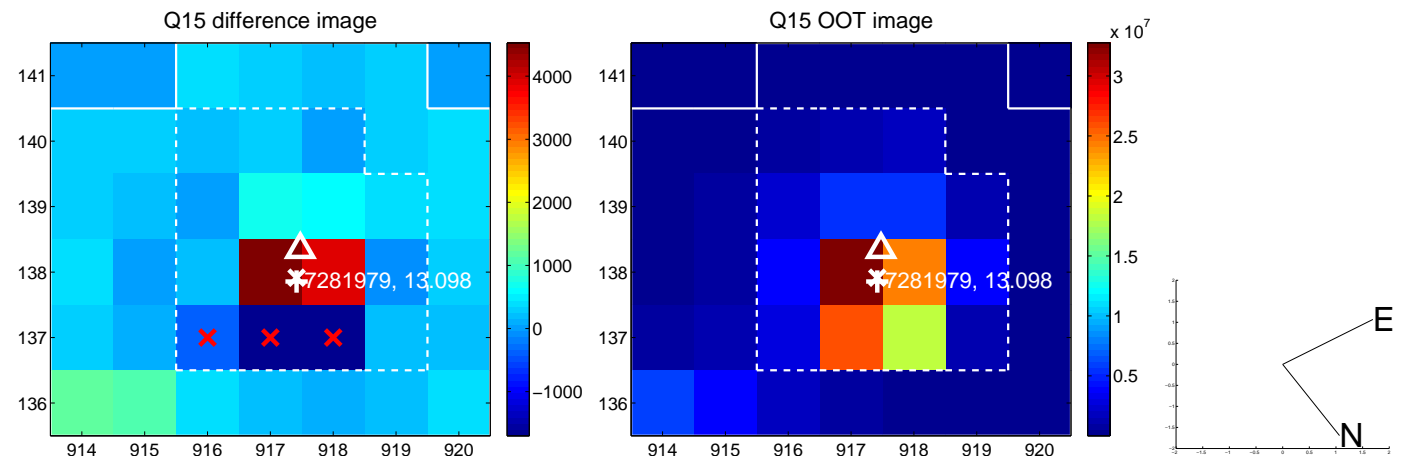
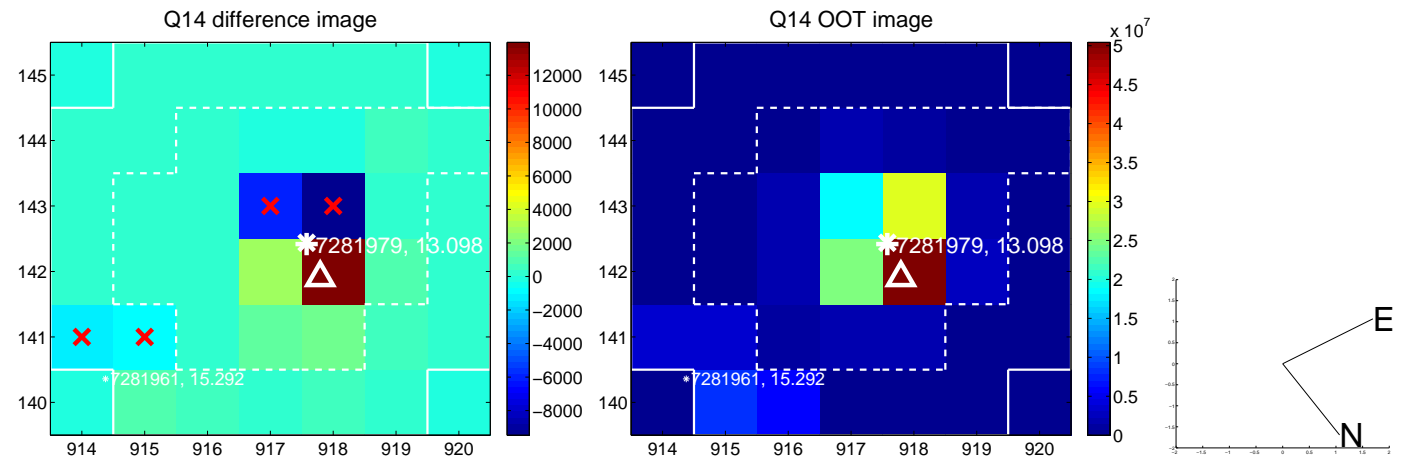
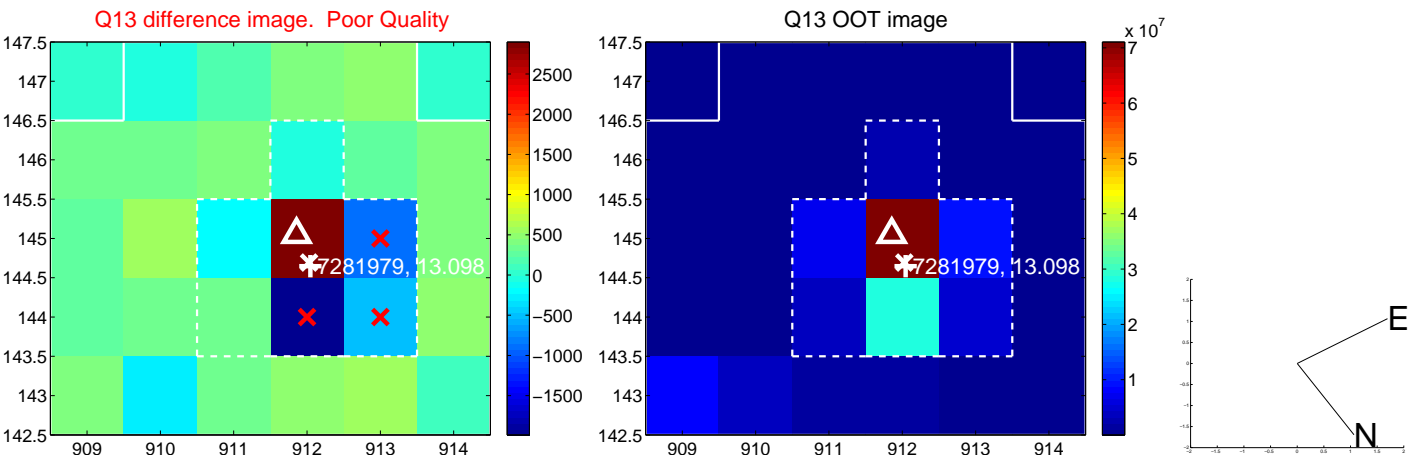
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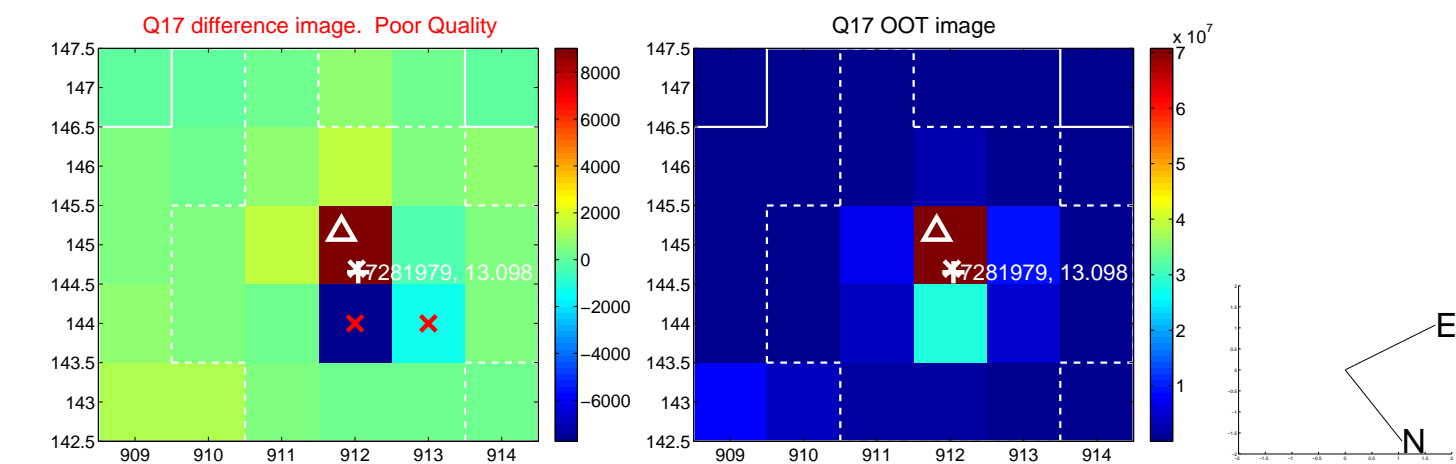
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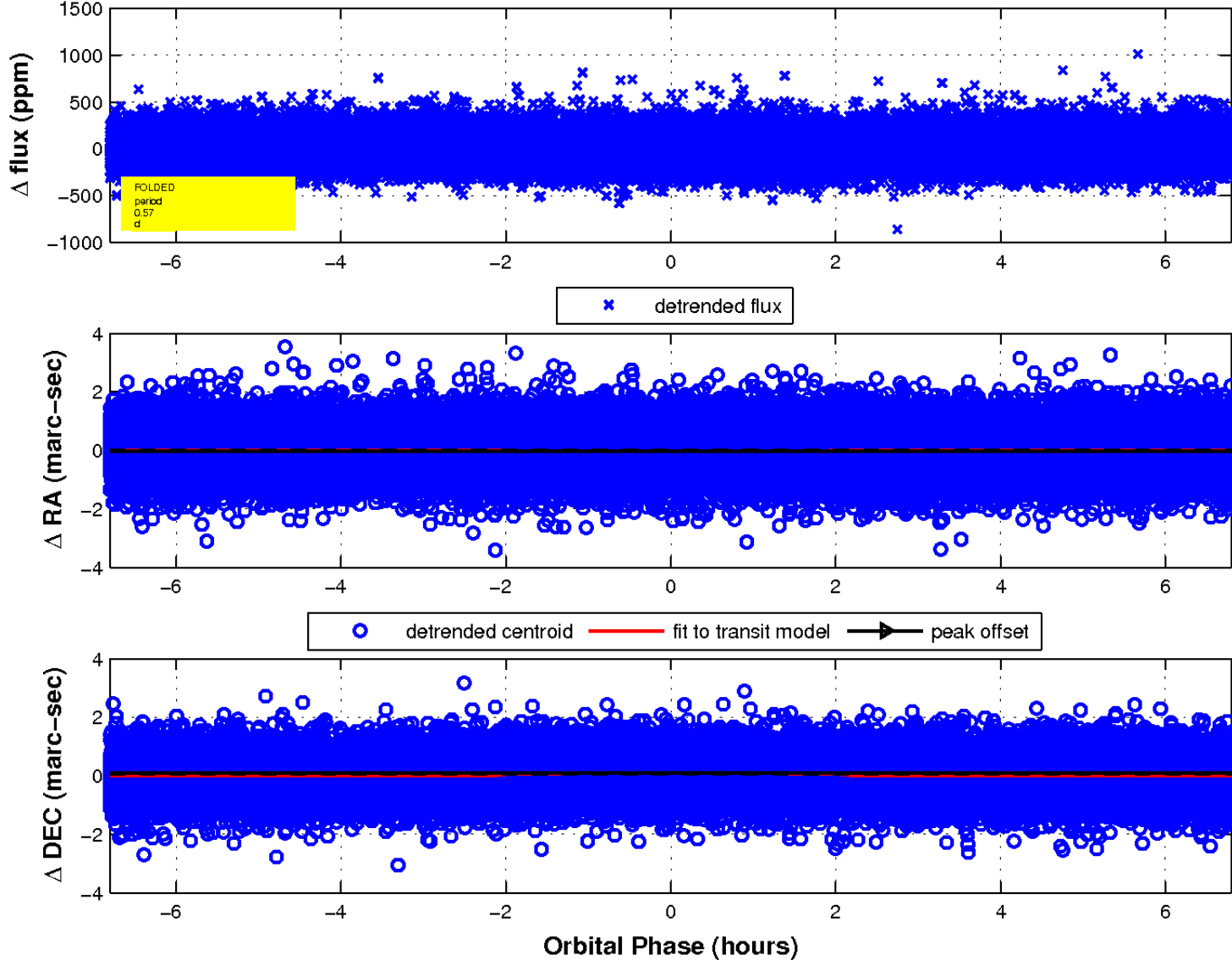
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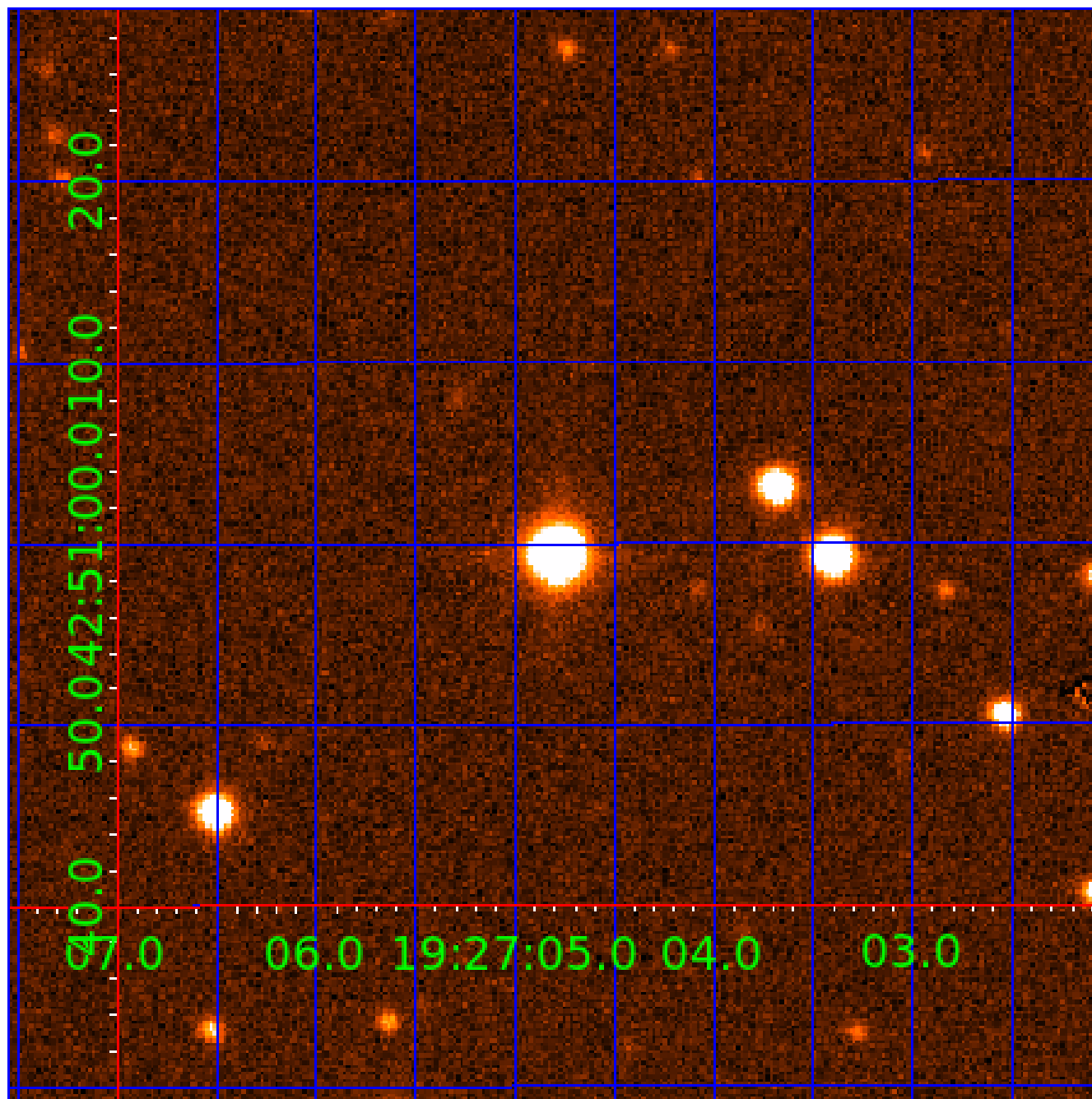


fluxWeightedCentroids, Planet 1 of 6



UKIRT Image

Declination



KIC 007281979

Q1-17 DR25 TCE Parameters

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Robovetter Results

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007281979-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281979-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS
007281979-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007281979-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

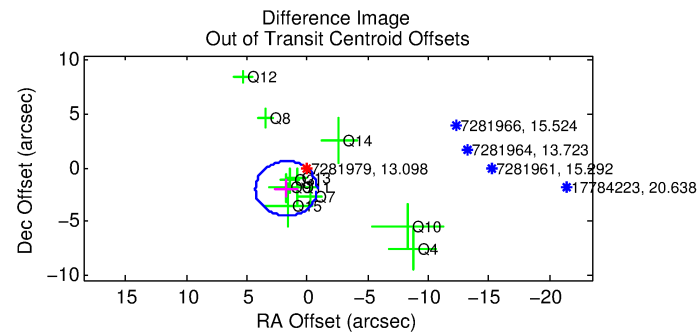
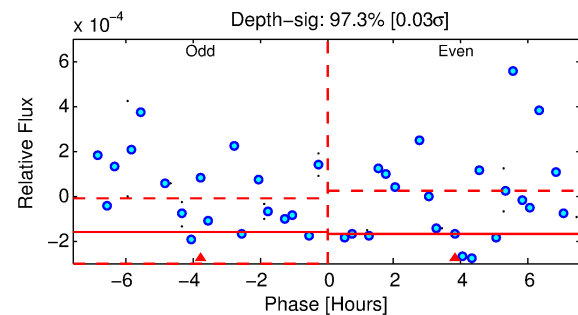
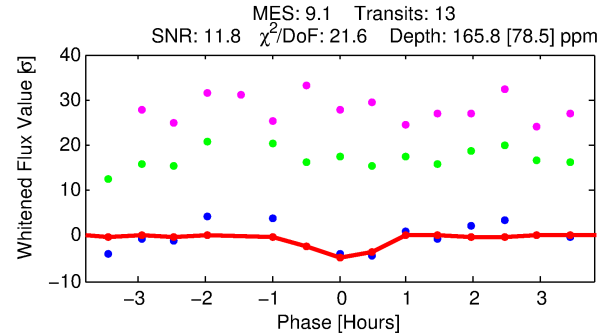
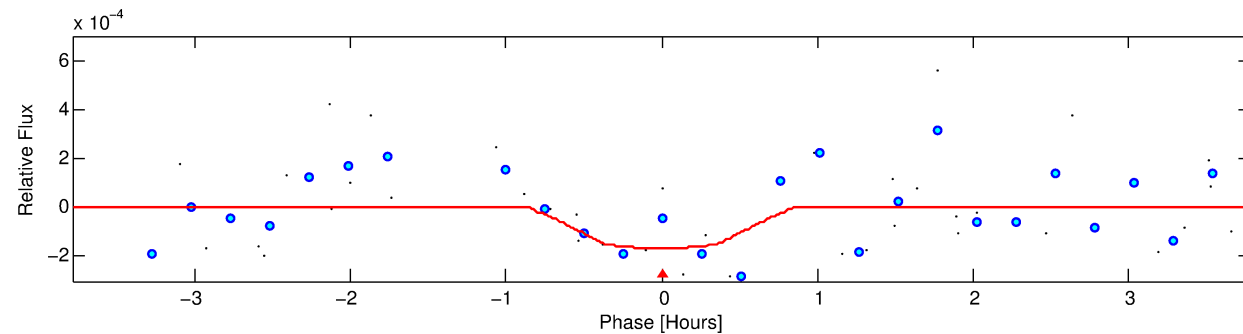
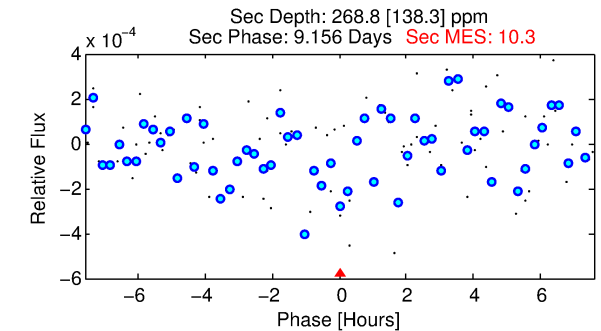
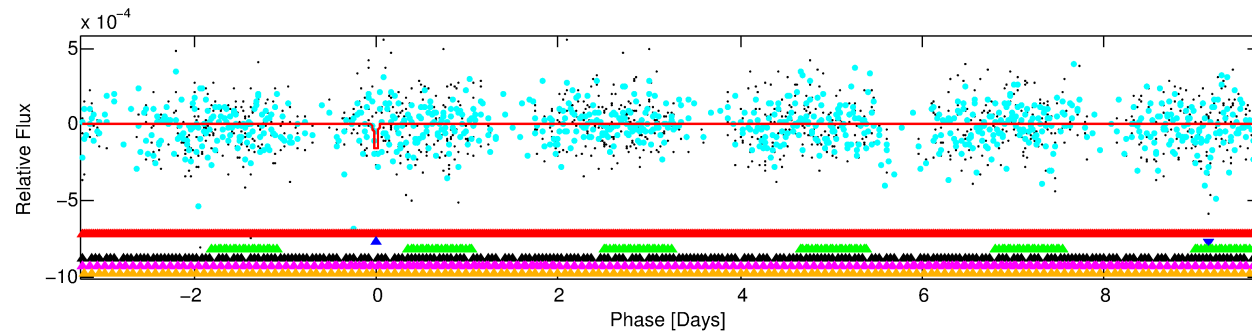
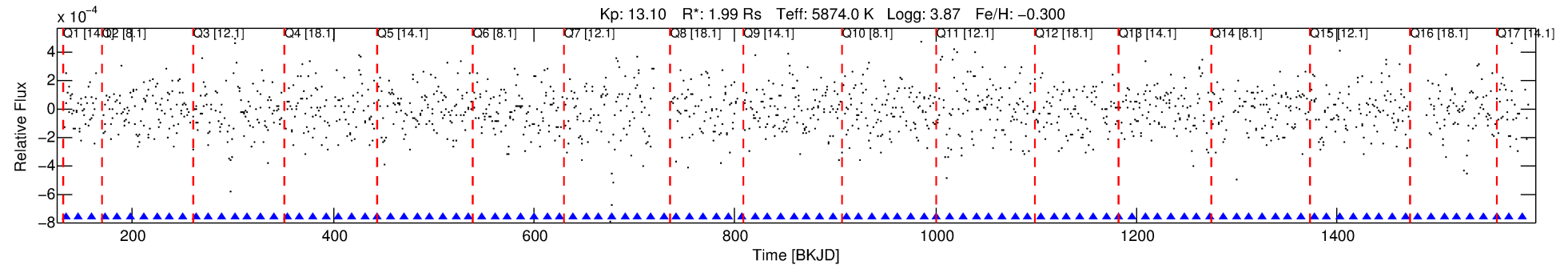
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007281979-02

No Significant Match Found

DV One-Page Summary

KIC: 7281979 Candidate: 2 of 6 Period: 12.952 d



DV Fit Results:

Period = 12.95211 [0.00035] d
Epoch = 133.6325 [0.0186] BKJD
Rp/R* = 0.0118 [0.0973]
a/R* = 79.06 [3074.29]
b = 0.08 [502.82]
Seff = 345.32 [188.96]
Teq = 1099 [150] K
Rp = 2.57 [21.17] Re
a = 0.1107 [0.0366] AU
Ag = 274.61 [4528.49] [0.06 σ]
Teffp = 6918 [28508] K [0.20 σ]

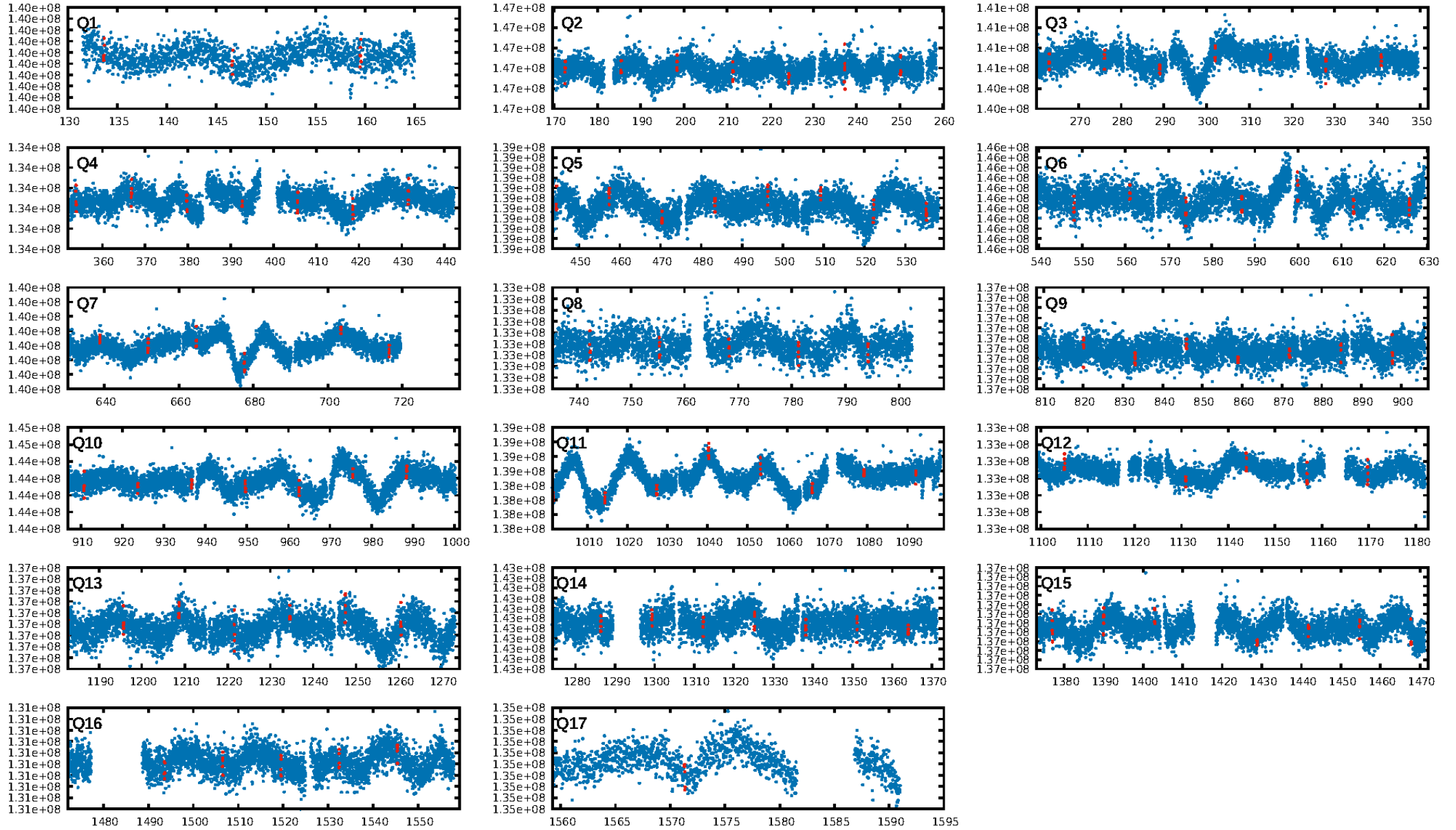
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [19.91 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: 4.335
Centroid-sig: 2.3%
Centroid-so: 1.648 arcsec [2.35 σ]
OotOffset-rm: 2.617 arcsec [3.08 σ]
OotOffset-st: 2/4/3/2 [11]
KicOffset-rm: 2.405 arcsec [2.83 σ]
KicOffset-st: 2/4/3/2 [11]
DiffImageQuality-fgm: 0.18 [2/11]
DiffImageOverlap-fno: 0.00 [0/17]

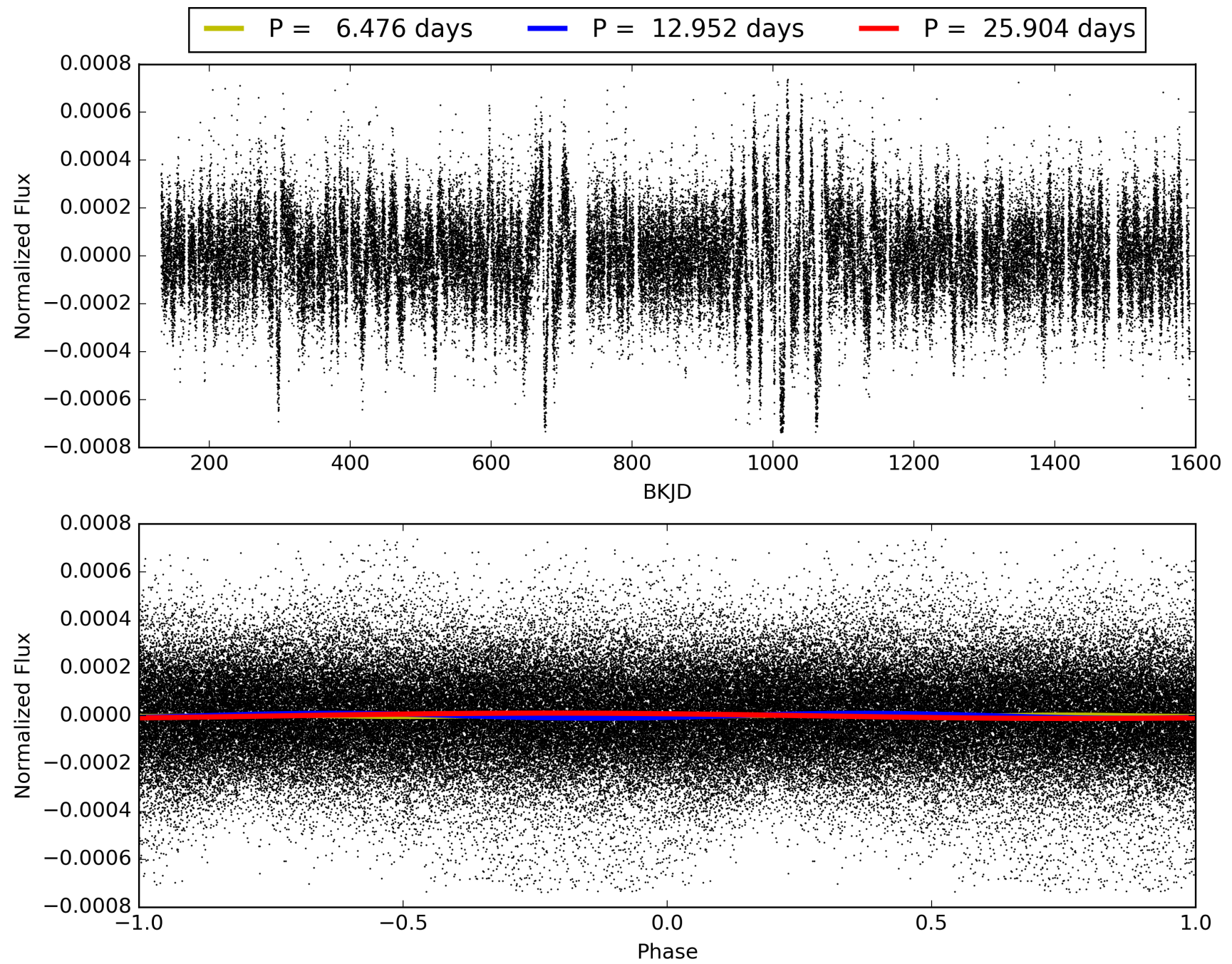
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:22:20 Z

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

TCE 007281979-02, PDC Light Curves

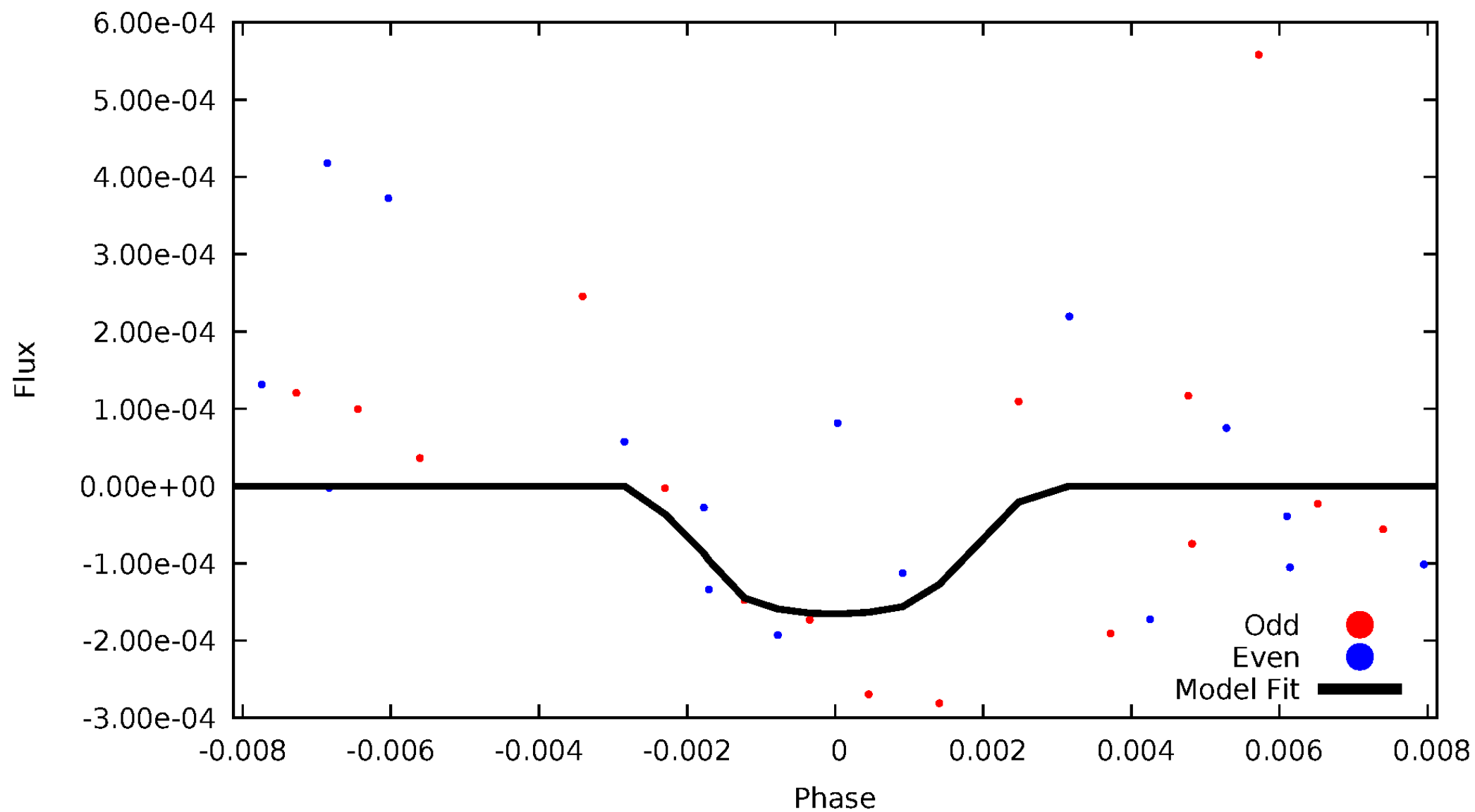


TCE 007281979-02



DV Odd/Even

TCE 007281979-02

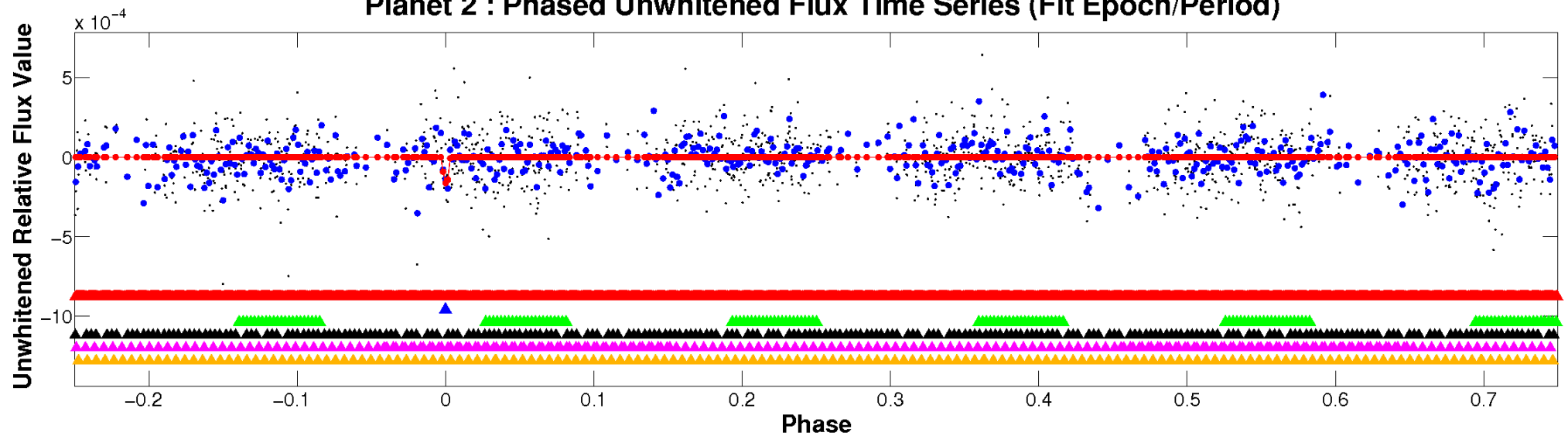


ALT Odd/Even

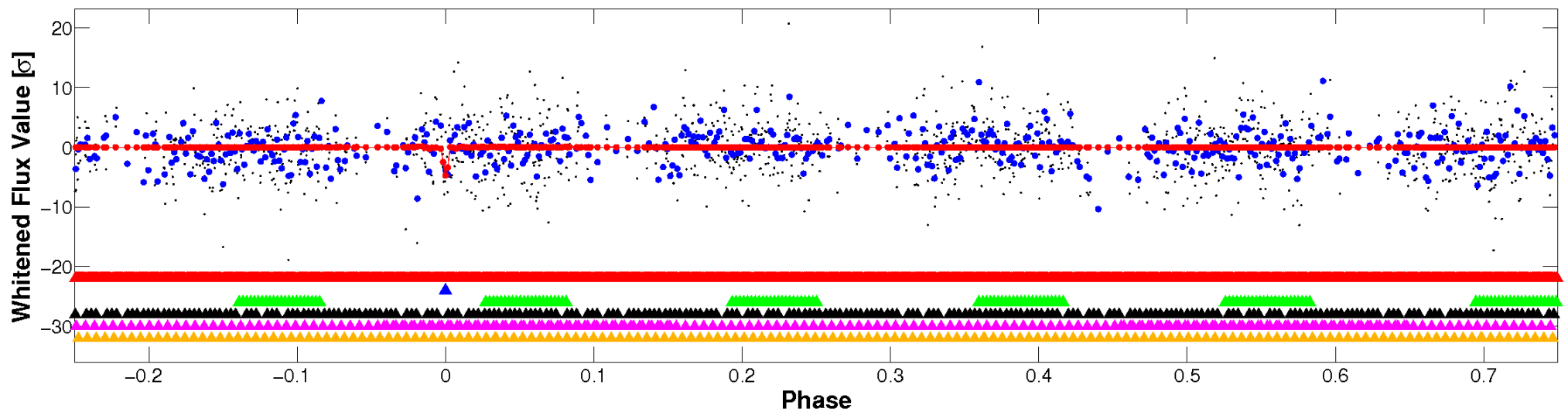
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

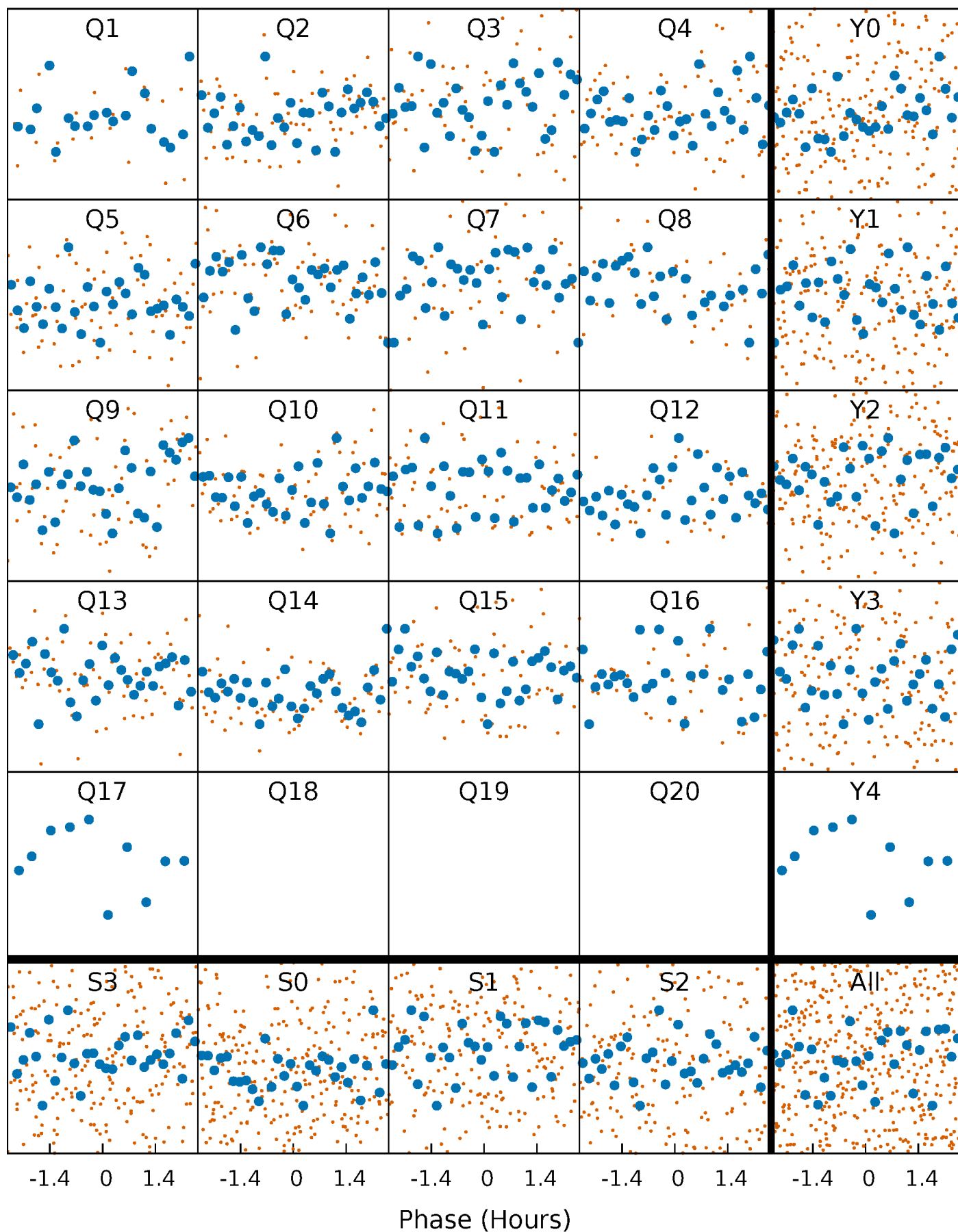


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



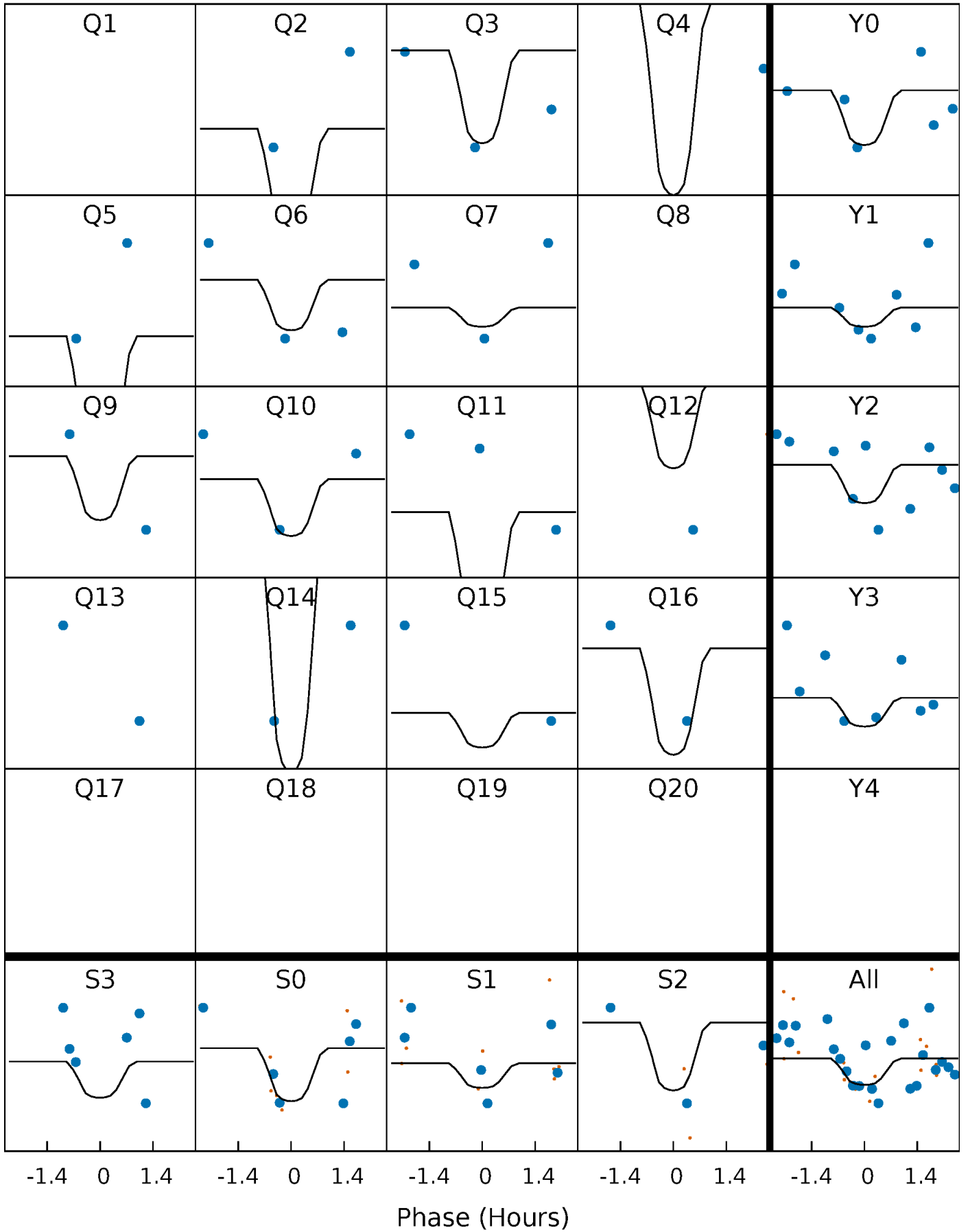
PDC Quarter-Phased Transit Curves

TCE 007281979-02 P= 12.952108 Days $T_0=133.632474$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281979-02 P= 12.952108 Days $T_0=133.632474$ (BKJD)

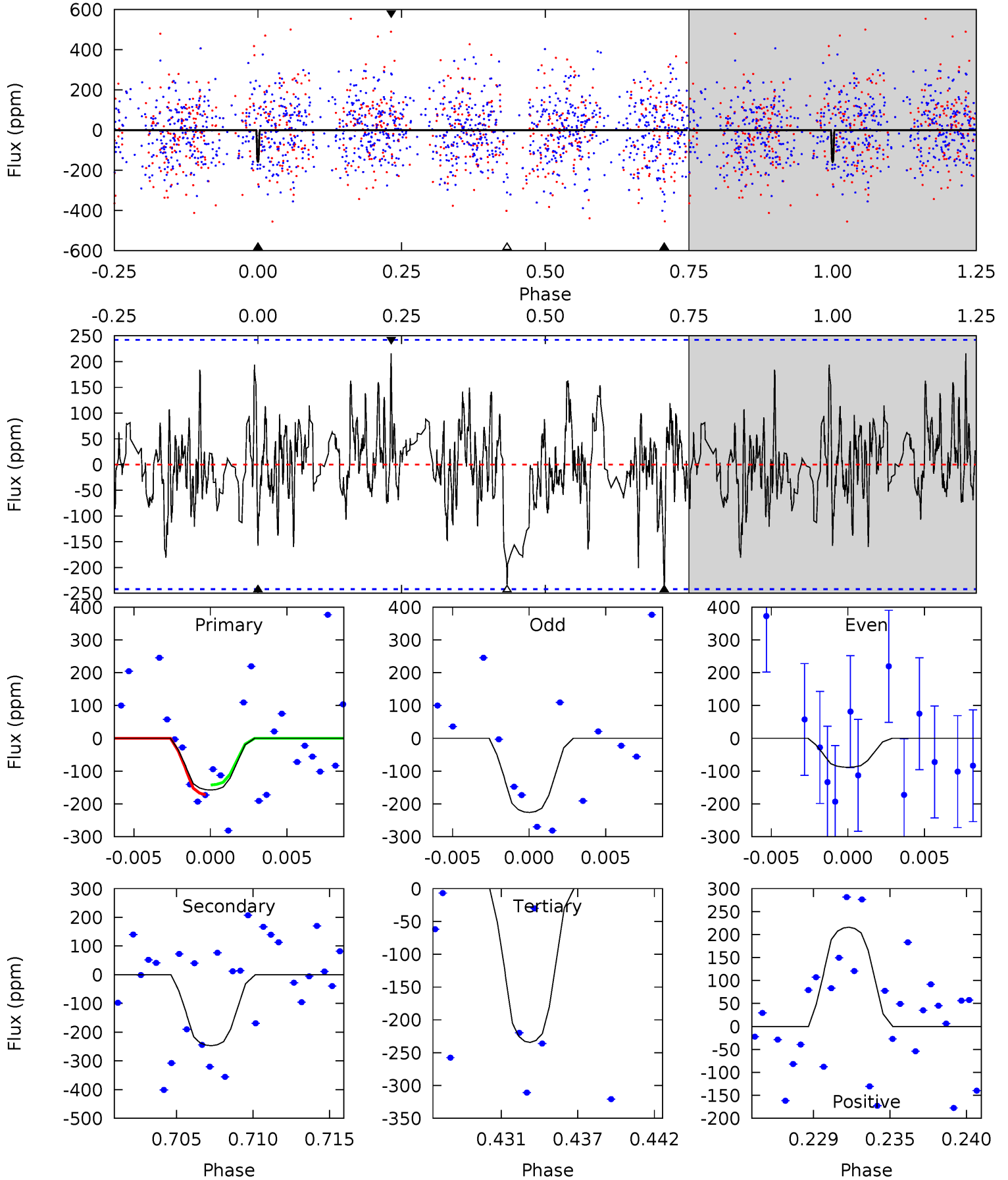


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281979-02, P = 12.952108 Days, E = 120.680366 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.35	5.24	4.98	4.58	5.14	2.78	1.38	-1.63	-1.24	0.27	0.66	1.48	0	0.47	0.32



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281979

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5874^{+176}_{-132}	$3.872^{+0.315}_{-0.105}$	$-0.300^{+0.350}_{-0.250}$	$1.991^{+0.364}_{-0.676}$	$1.076^{+0.175}_{-0.175}$	$0.192^{+0.386}_{-0.073}$
	+3%/-2%	+8%/-3%	+117%/-83%	+18%/-34%	+16%/-16%	+201%/-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 007281979-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-247 ± 47	$14.34^{+15.77}_{-10.29}$	1515^{+91}_{-137}	3282^{+1932}_{-634}	$7.787^{+88.870}_{-5.984}$
Alt.	N/A	N/A	N/A	N/A	N/A

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

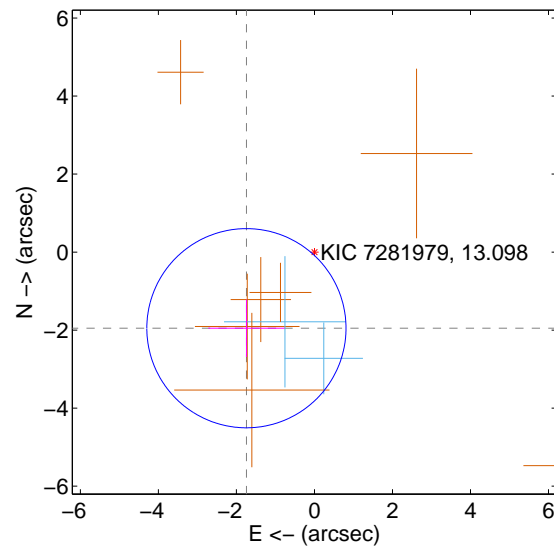
Supplemental centroid analysis for 007281979-02. Kepler magnitude: 13.10. Transit SNR 11.79

There are 2 quarters with good PRF difference image offsets

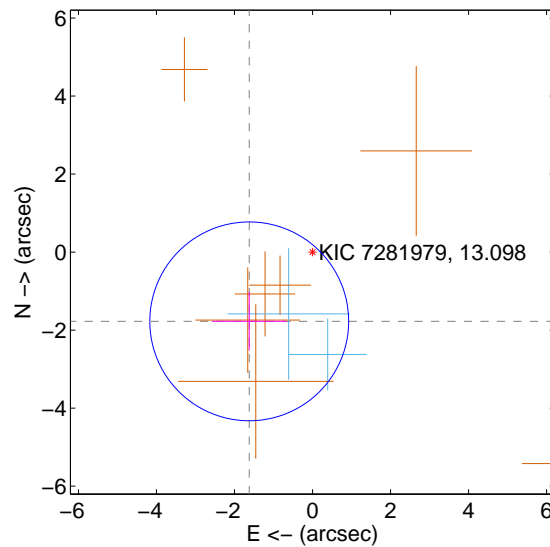
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.617 ± 0.851	3.08	1.744 ± 0.975	-1.951 ± 0.736
PRF-fit source offset from KIC position	2.405 ± 0.849	2.83	1.622 ± 0.955	-1.775 ± 0.749
photometric centroid source offset	1.65 ± 0.70	2.35	-1.53 ± 0.71	-0.61 ± 0.61

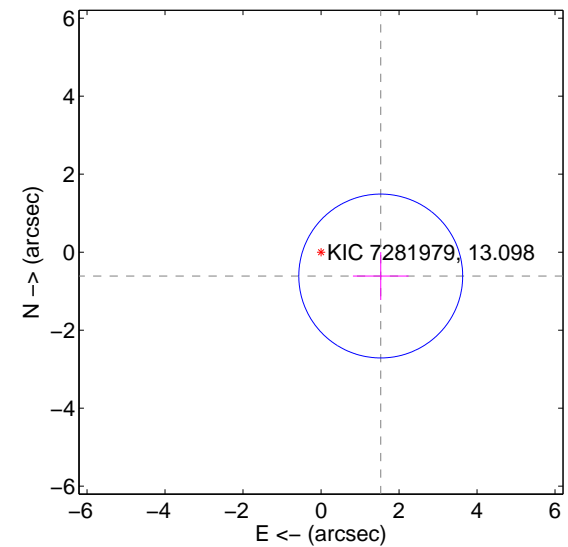
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

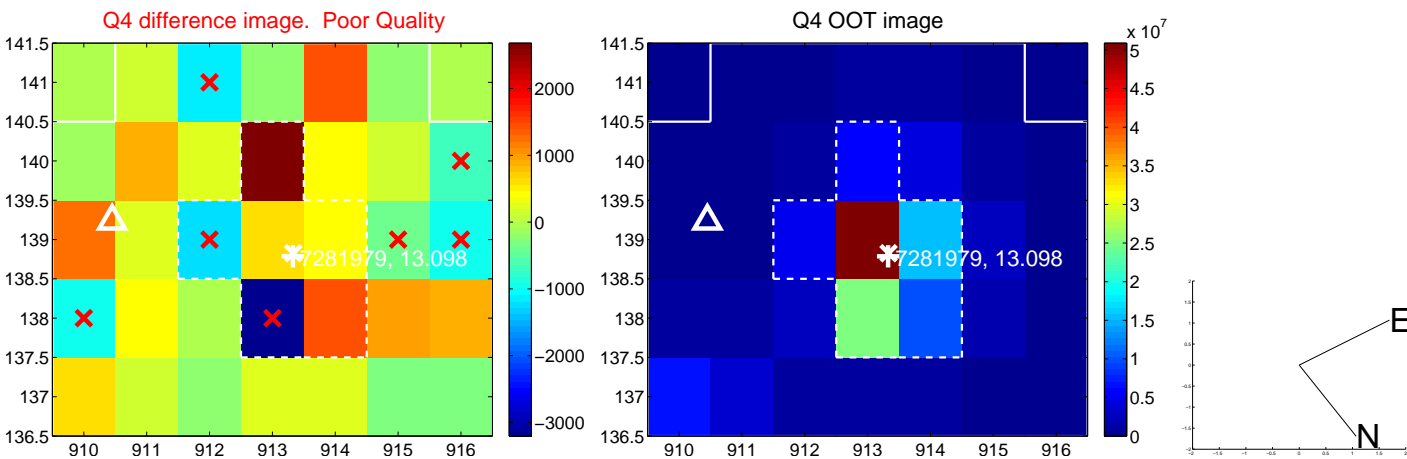
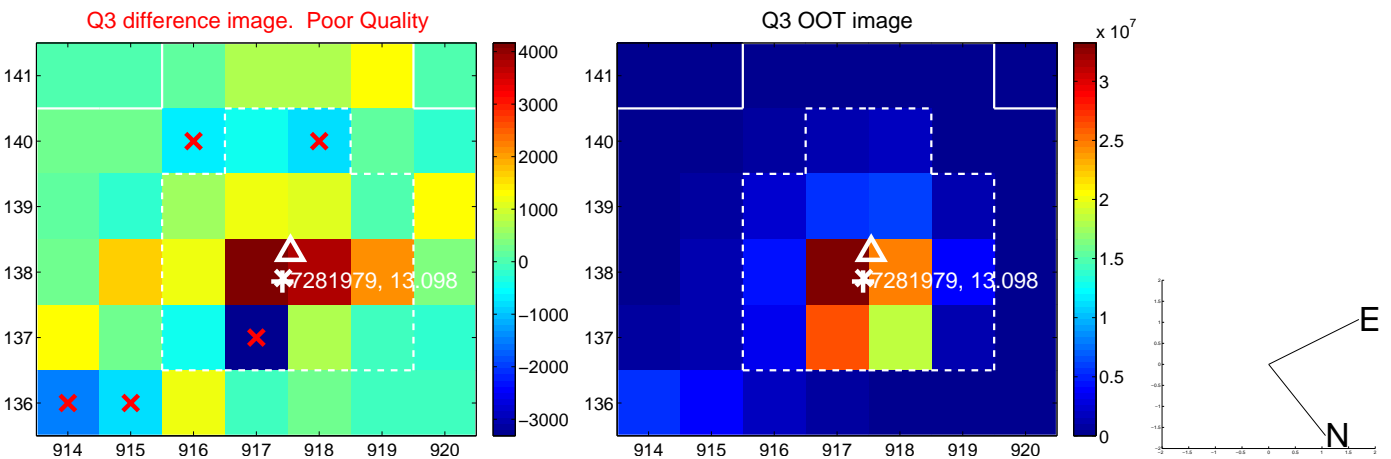
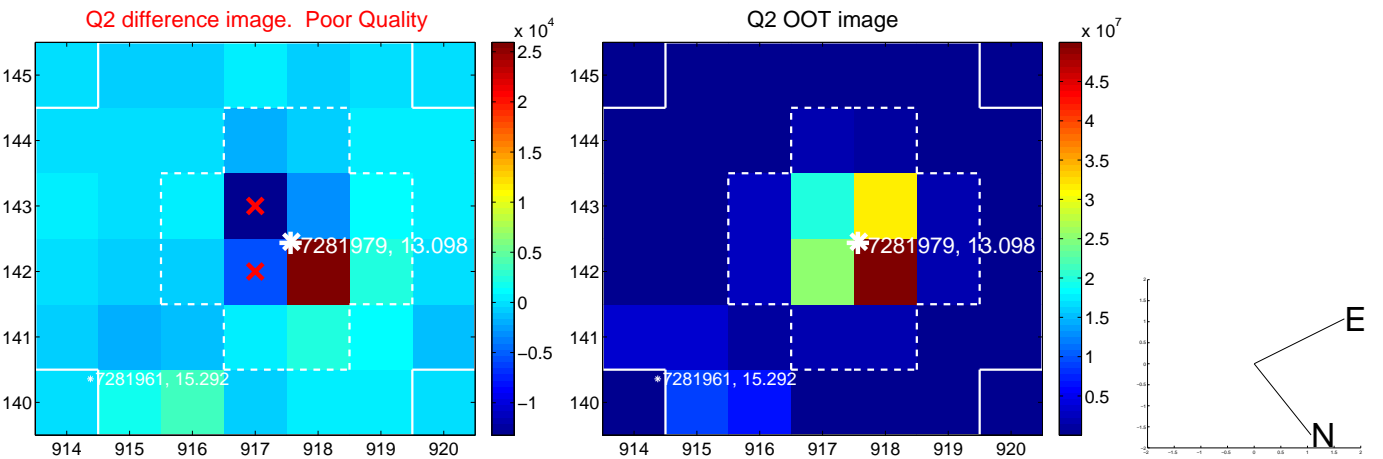
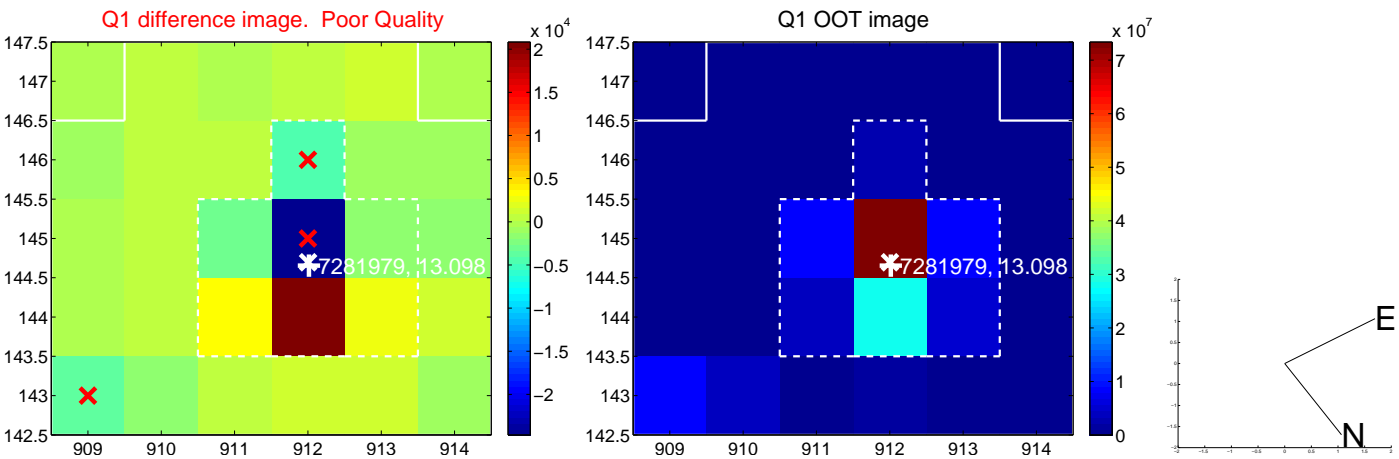


offset from photometric centroids

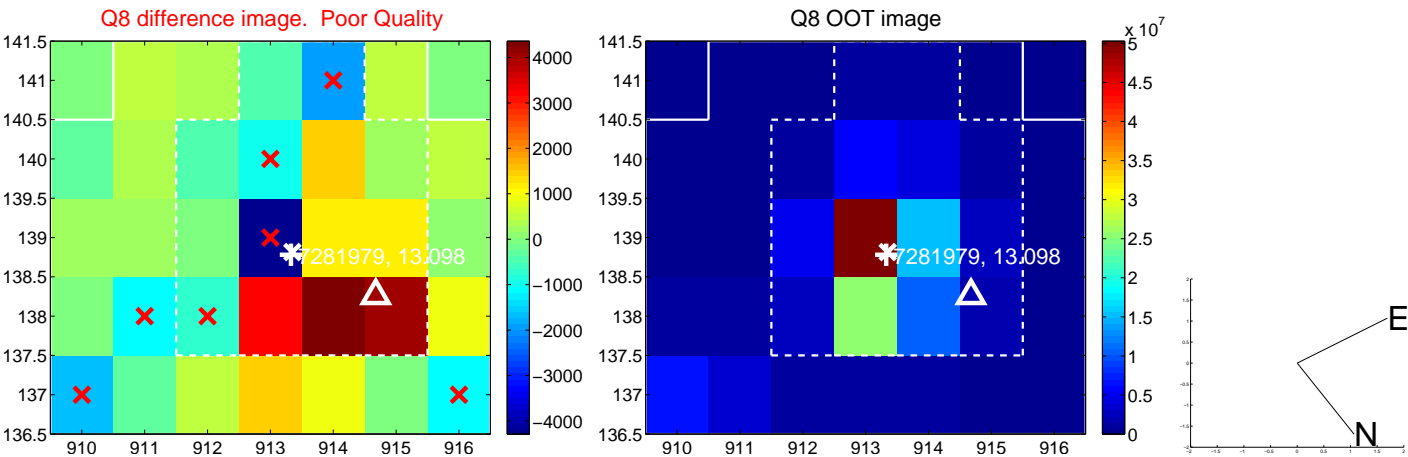
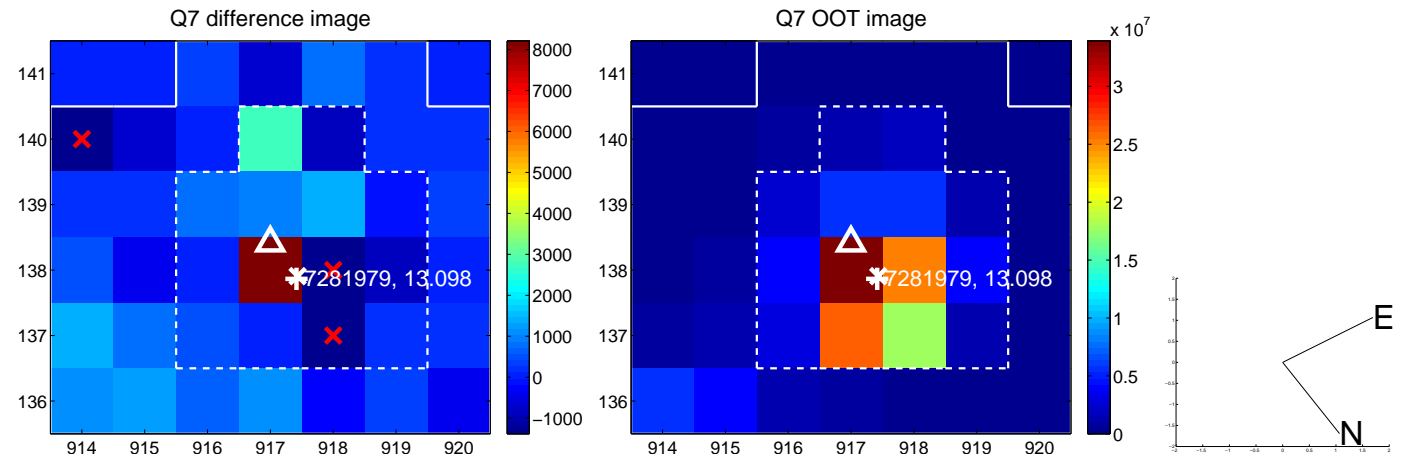
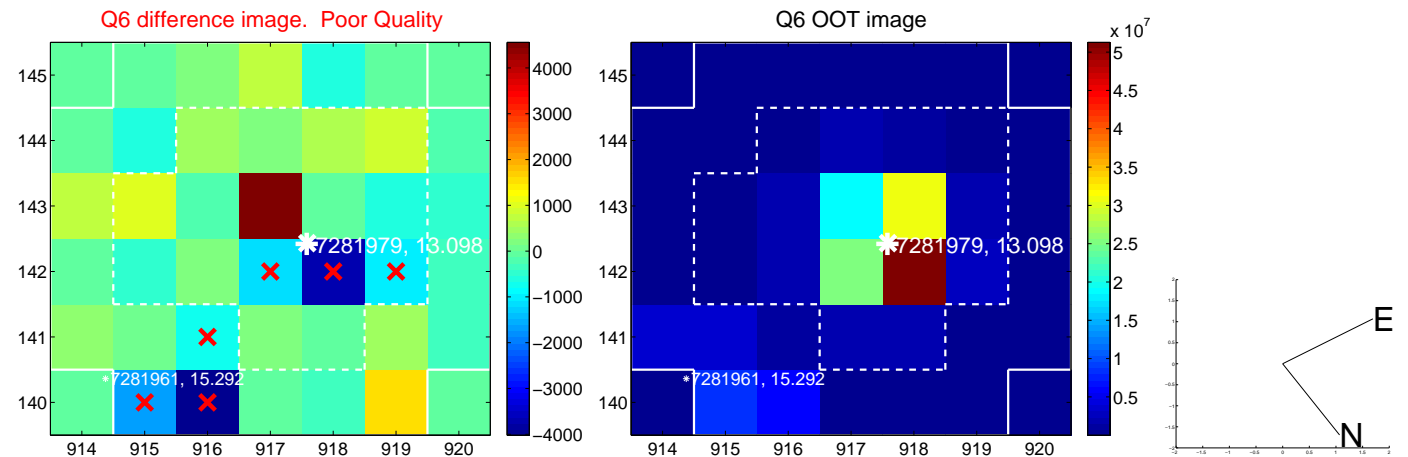
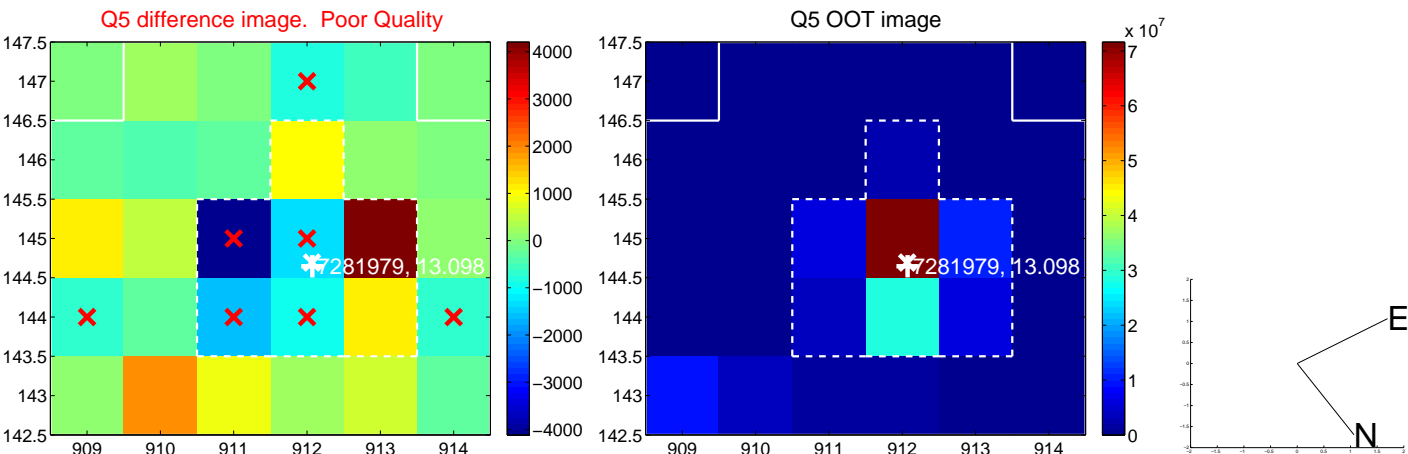


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

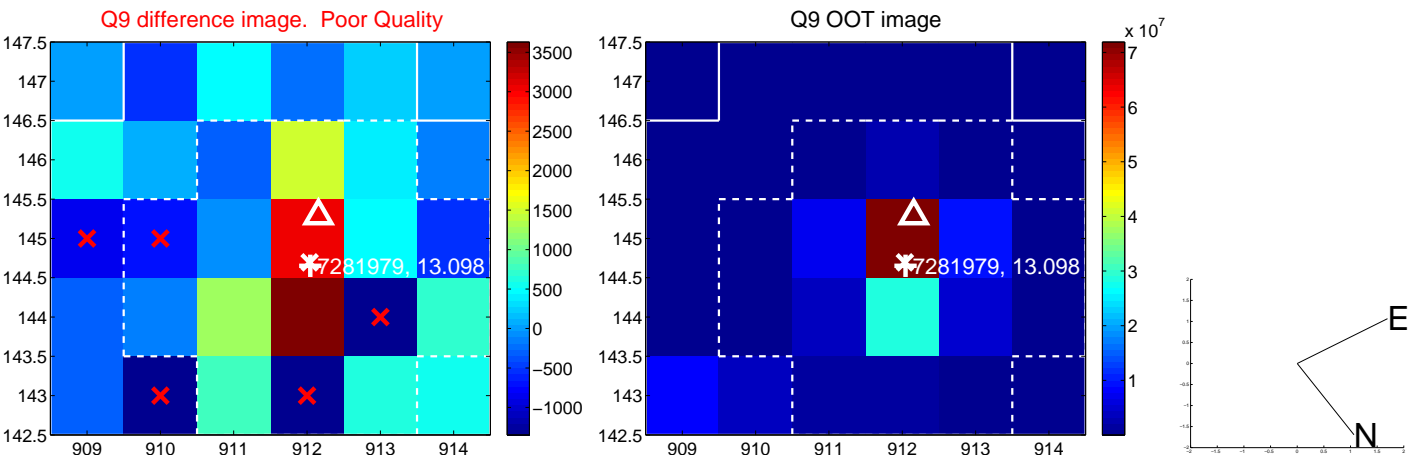
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



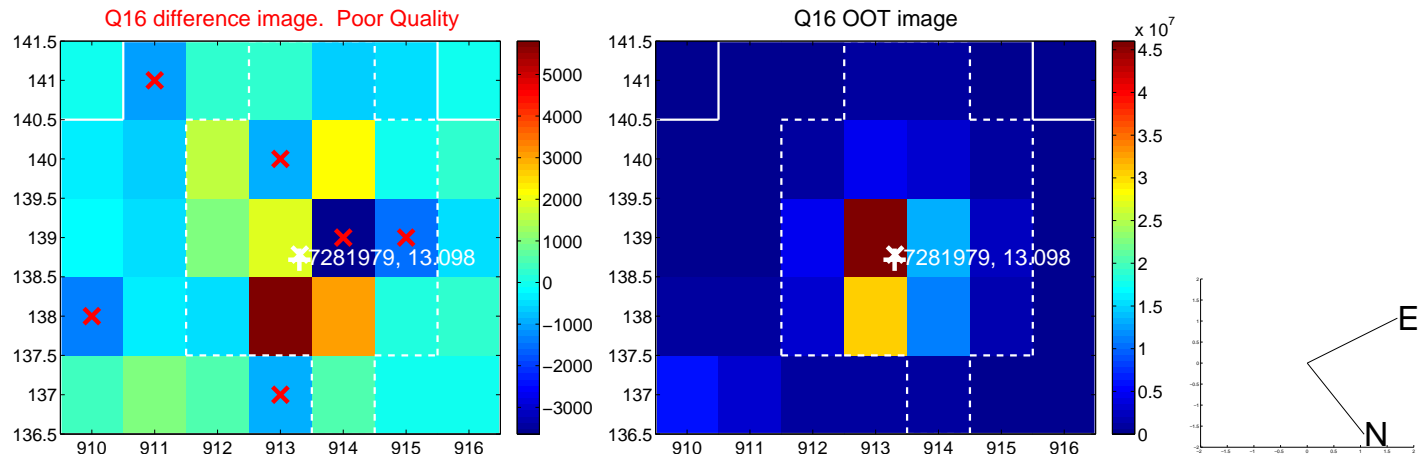
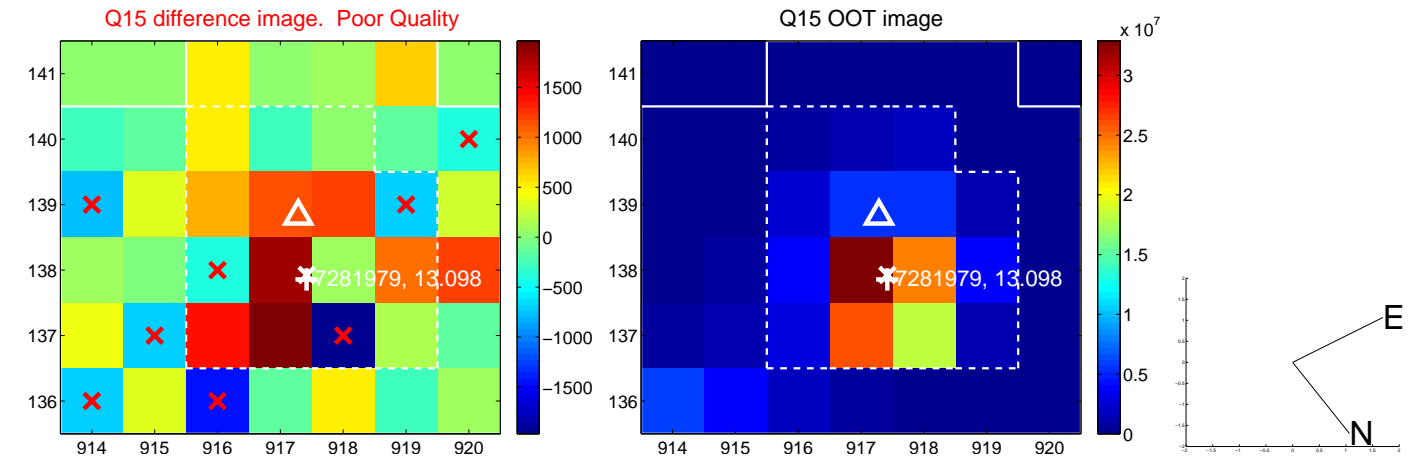
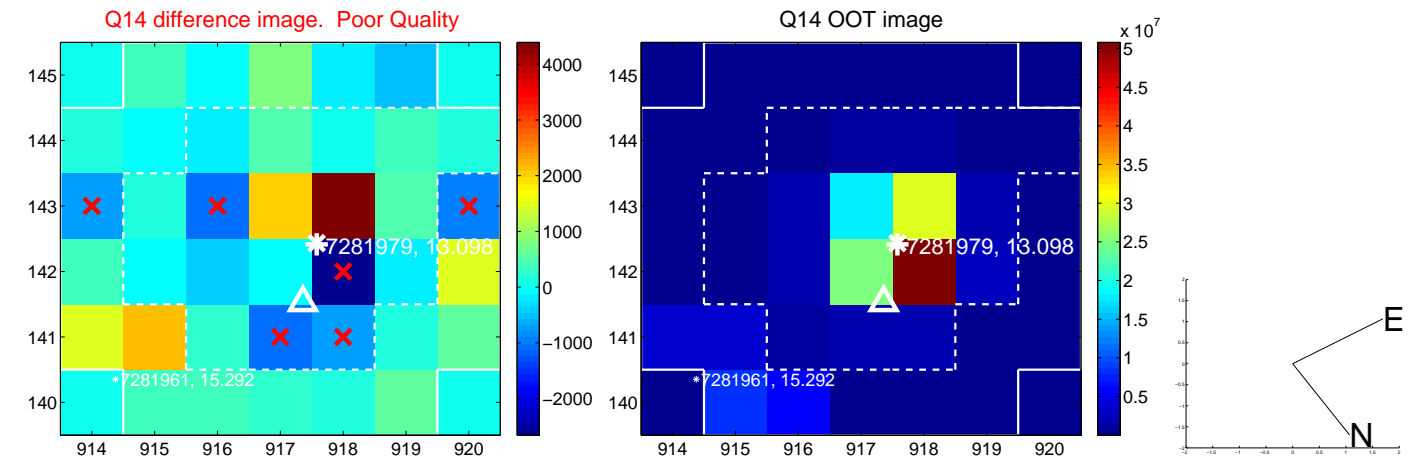
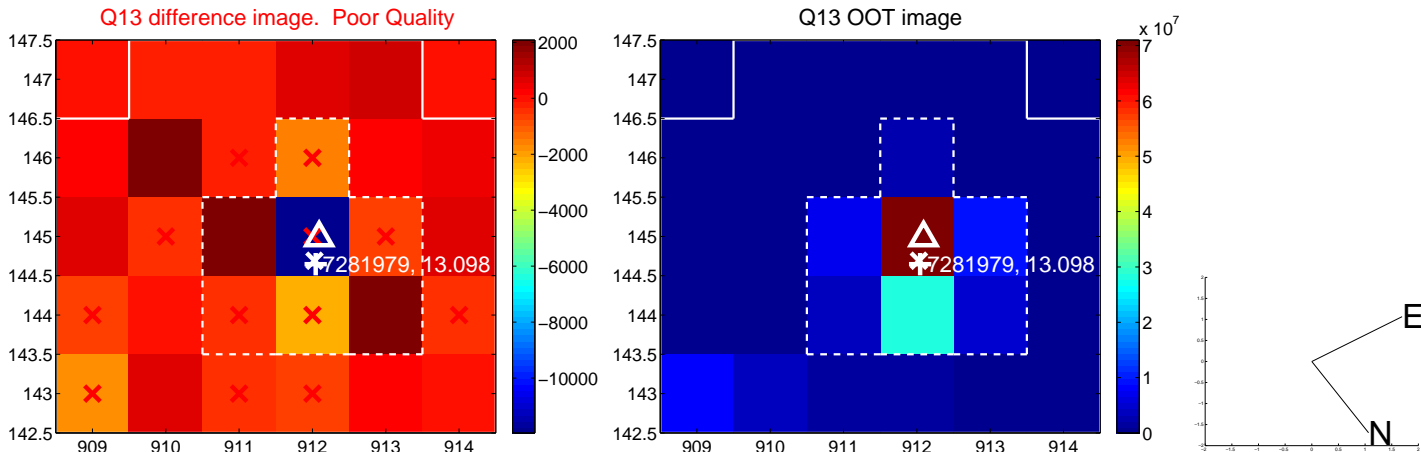
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



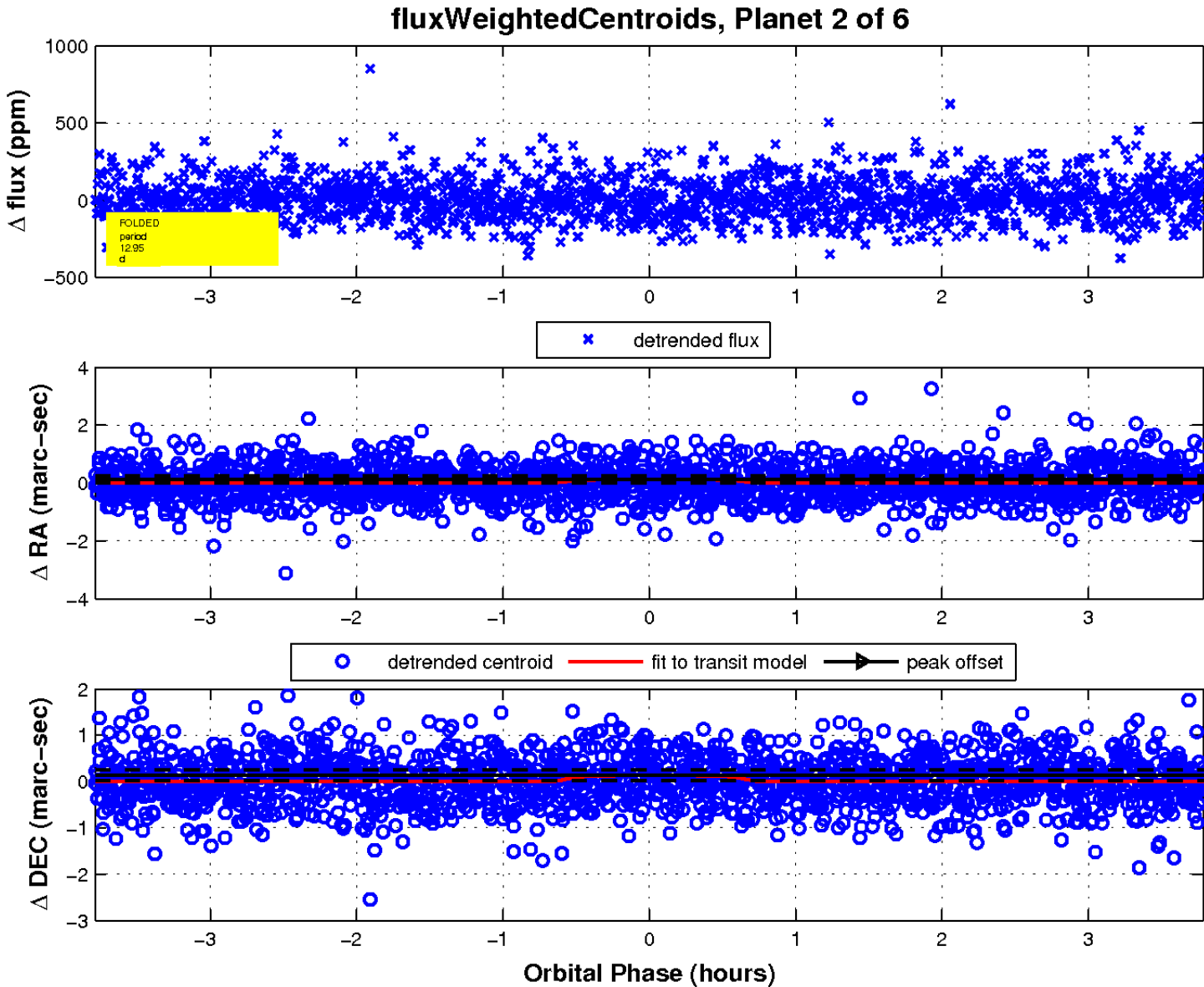
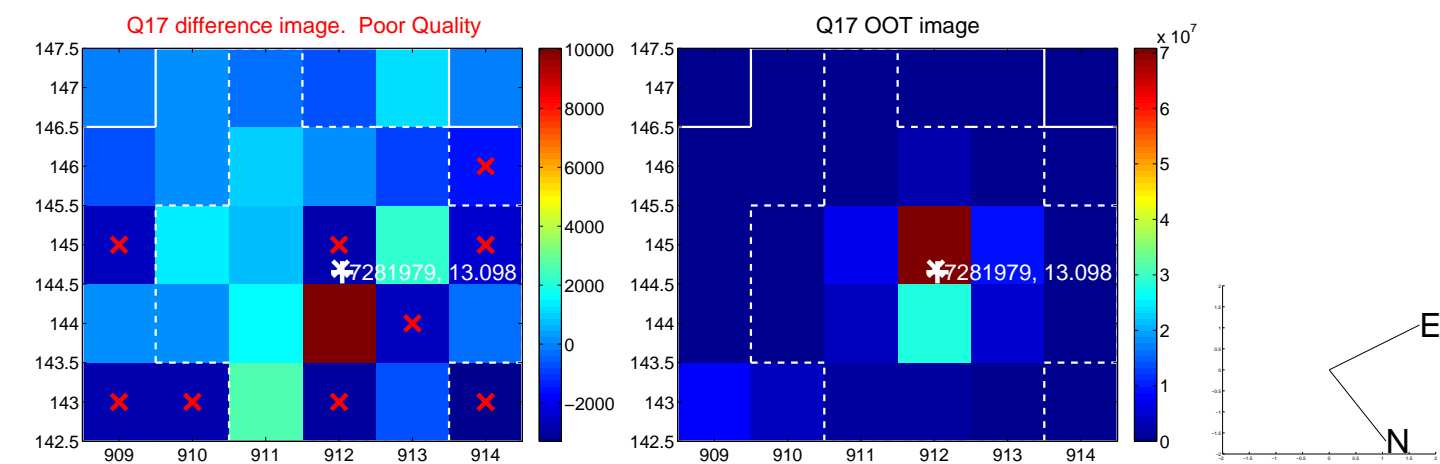
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

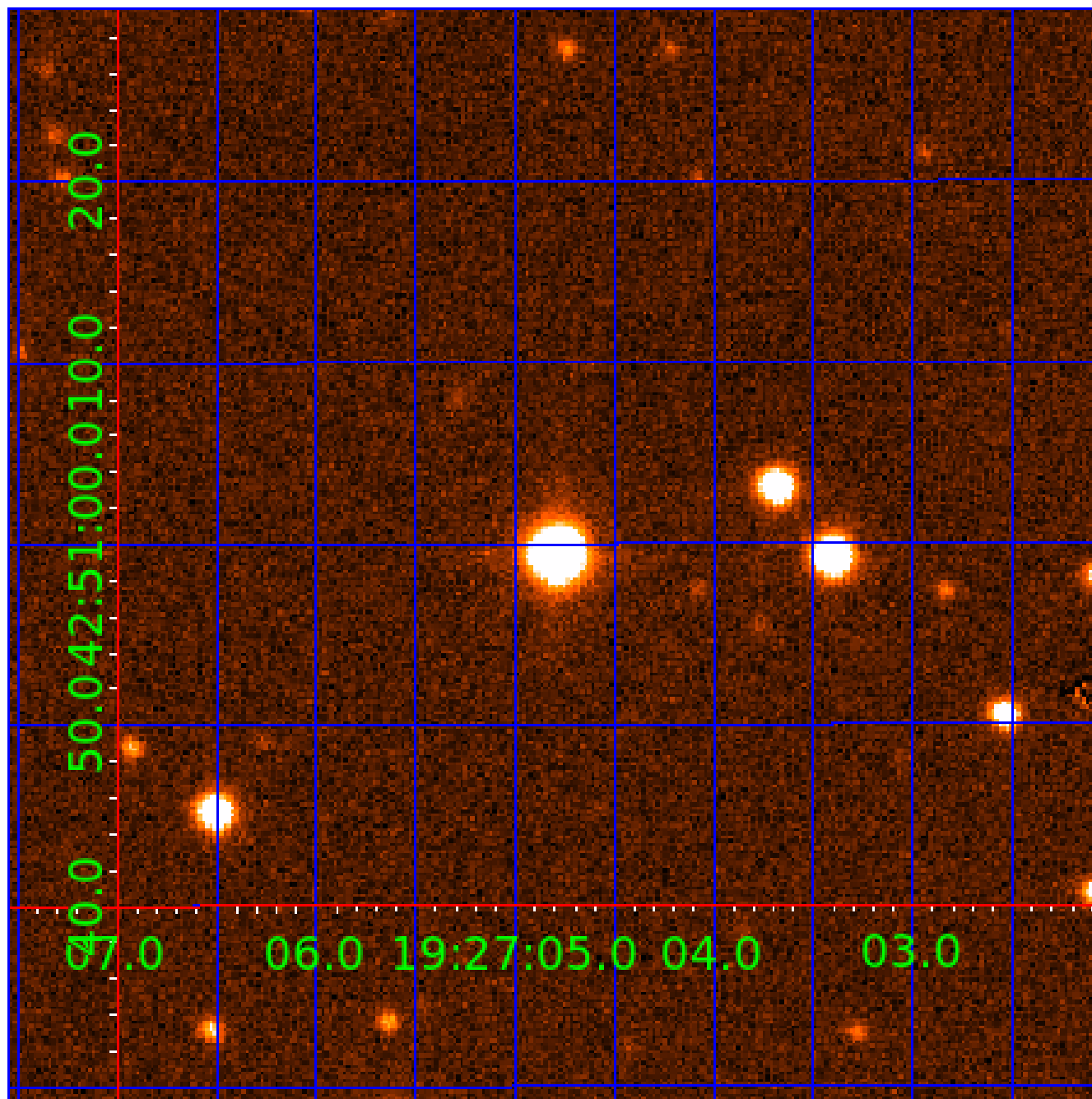


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007281979

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})
007281979-01	OBS	No	0.566775	131.860975	15.1	4.261	10.9	12.4	1.99	5874	0.77	22393.92
007281979-02	OBS	No	12.952108	133.632474	165.8	1.263	9.1	11.8	1.99	5874	2.57	345.32
007281979-03	OBS	No	10.798999	140.443167	137.8	2.268	8.0	14.6	1.99	5874	2.76	440.05
007281979-04	OBS	No	5.776498	132.395369	652.8	1.500	14.1	-1.0	1.99	5874	5.09	1013.42
007281979-05	OBS	No	6.436181	135.591973	247.7	1.366	9.8	16.7	1.99	5874	3.17	877.35
007281979-06	OBS	No	8.608937	134.065177	282.3	0.944	11.4	17.4	1.99	5874	3.72	595.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281979-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_FEW_DIFFS—EPHEM_MATCH
007281979-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
007281979-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281979-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS
007281979-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007281979-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

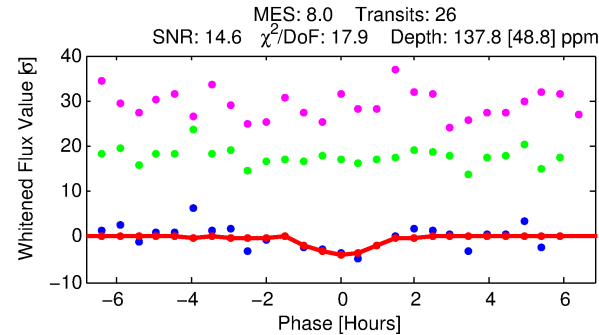
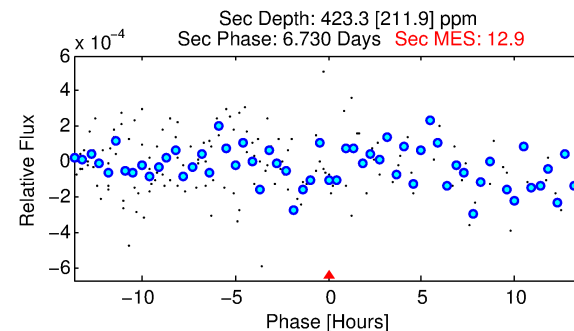
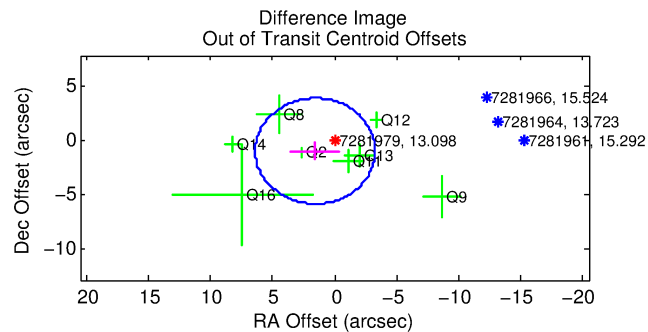
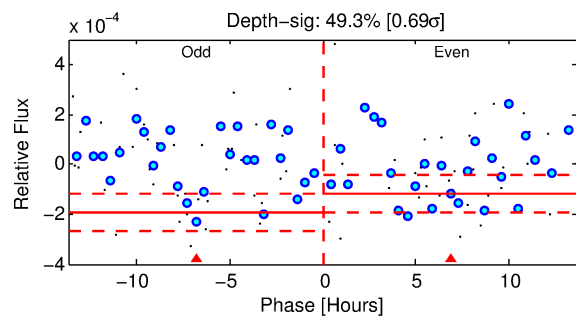
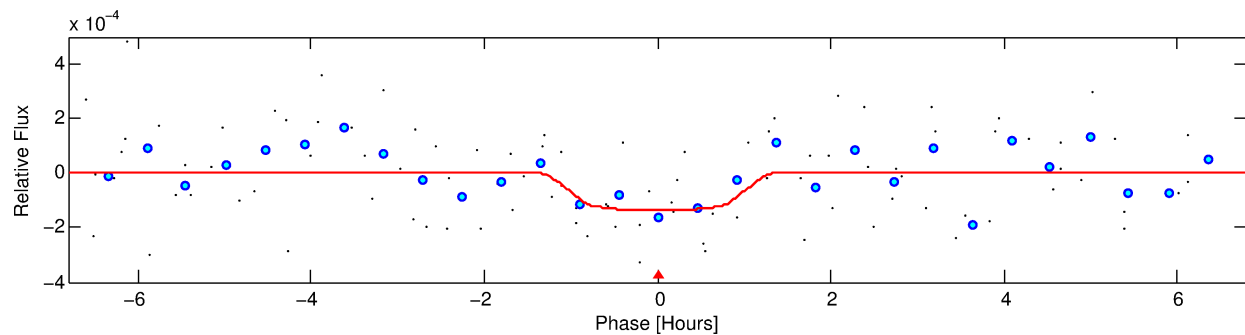
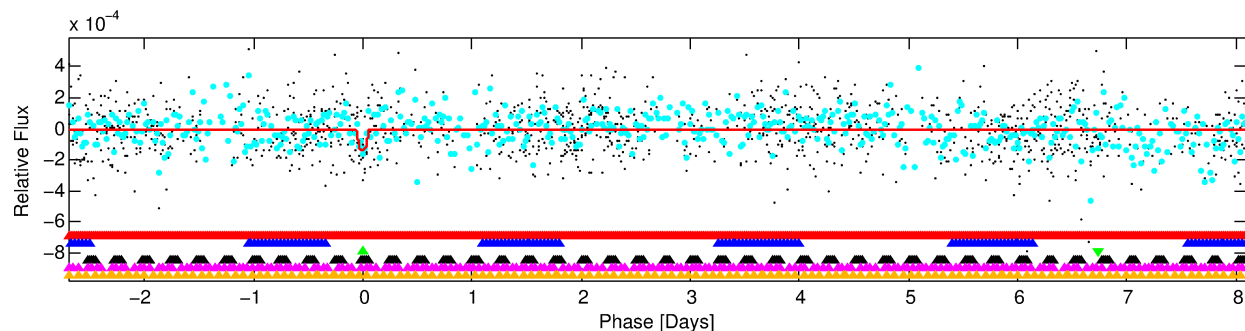
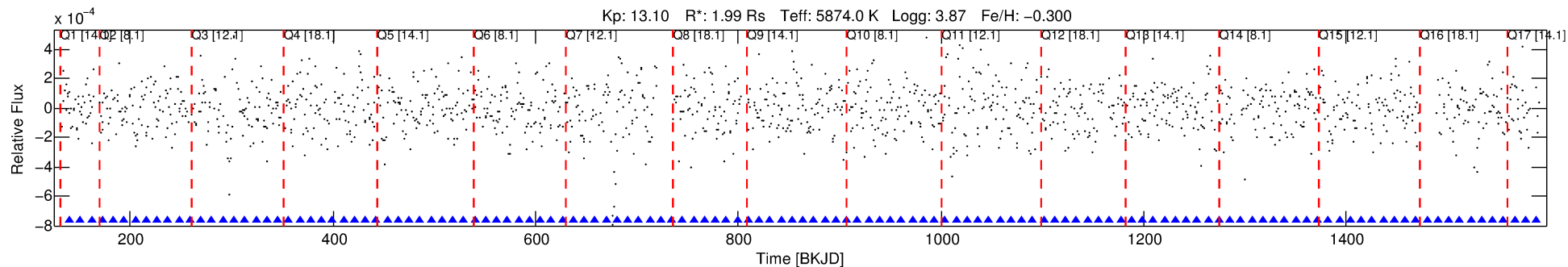
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007281979-03

No Significant Match Found

DV One-Page Summary

KIC: 7281979 Candidate: 3 of 6 Period: 10.799 d



DV Fit Results:

Period = 10.79900 [0.00030] d
Epoch = 140.4432 [0.0180] BKJD
Rp/R* = 0.0127 [0.0291]
a/R* = 17.01 [197.67]
b = 0.90 [2.56]
Seff = 440.05 [240.79]
Teq = 1168 [160] K
Rp = 2.76 [6.39] Re
a = 0.0980 [0.0325] AU
Ag = 294.25 [1366.54] [0.21 σ]
Teffp = 7479 [8628] K [0.73 σ]

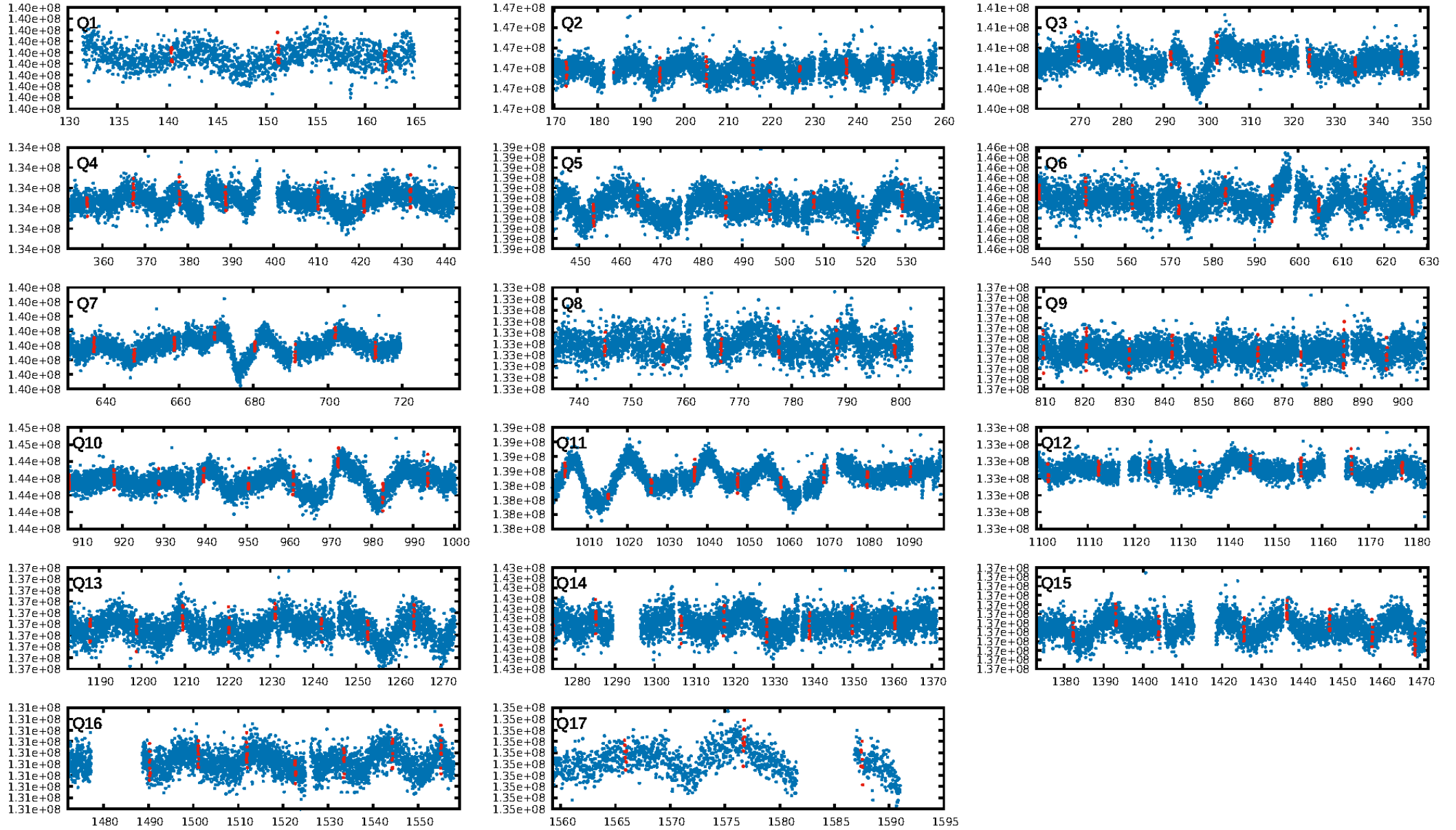
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [21.40 σ]
LongPeriod-sig: 100.0% [19.91 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [26/26]
GhostDiagnostic-chr: 0.6484
Centroid-sig: 2.7%
Centroid-so: 1.156 arcsec [2.11 σ]
OotOffset-rm: 1.848 arcsec [1.15 σ]
KicOffset-rm: 1.757 arcsec [1.14 σ]
OotOffset-st: 2/1/3/2 [8]
KicOffset-st: 2/1/3/2 [8]
DiffImageQuality-fgm: 0.00 [0/8]
DiffImageOverlap-fno: 0.00 [0/17]

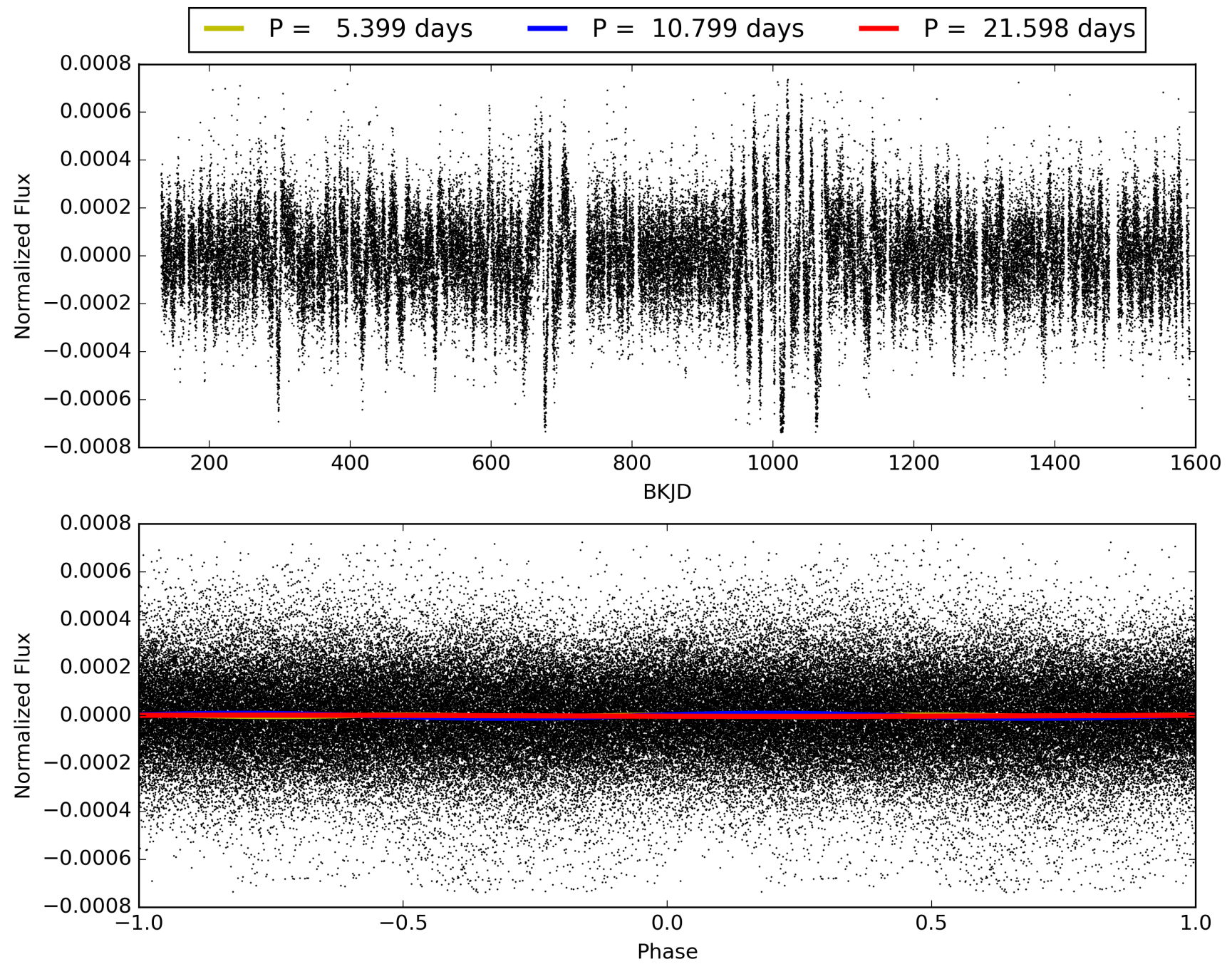
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:22:23 Z

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

TCE 007281979-03, PDC Light Curves

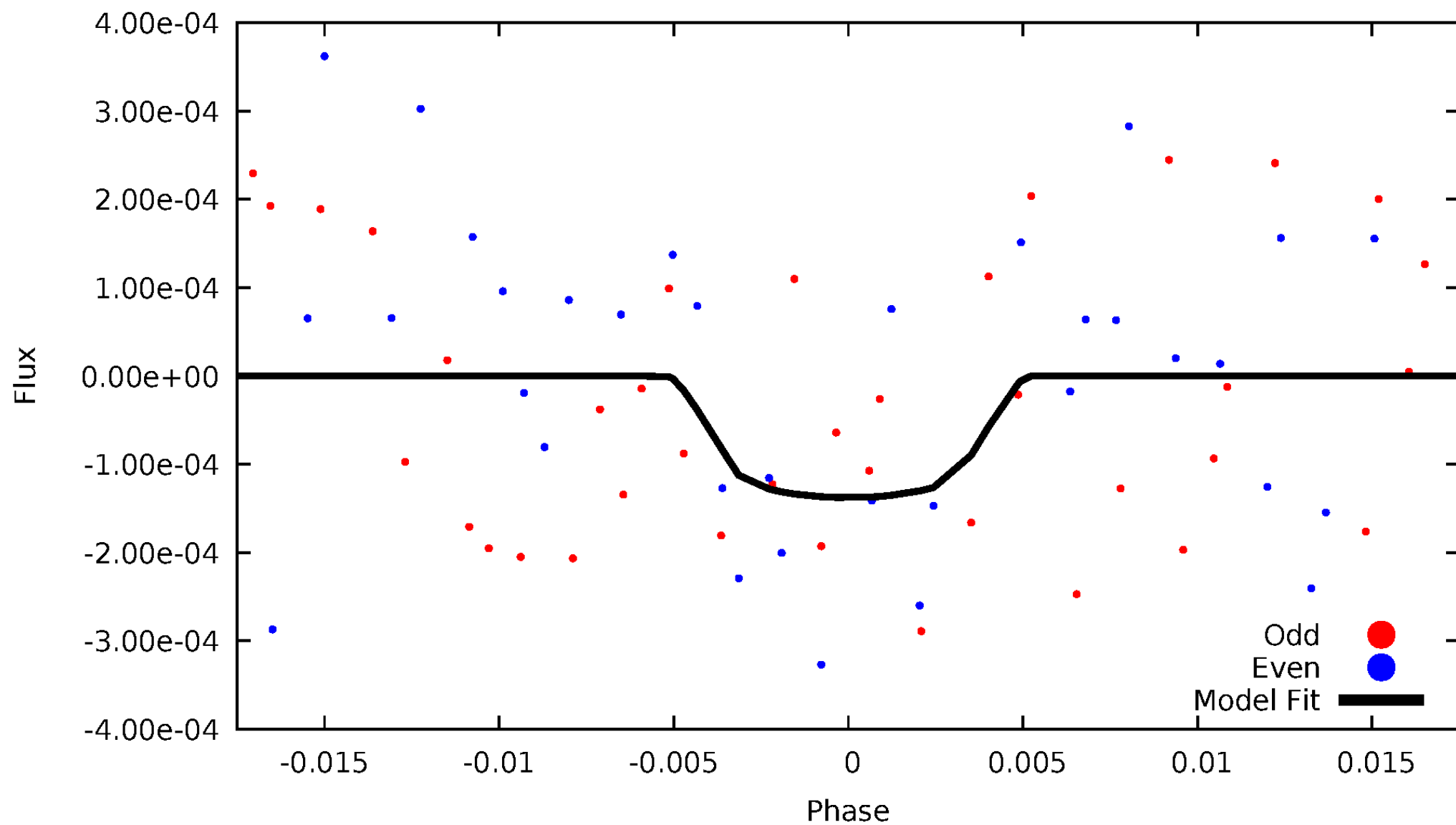


TCE 007281979-03



DV Odd/Even

TCE 007281979-03

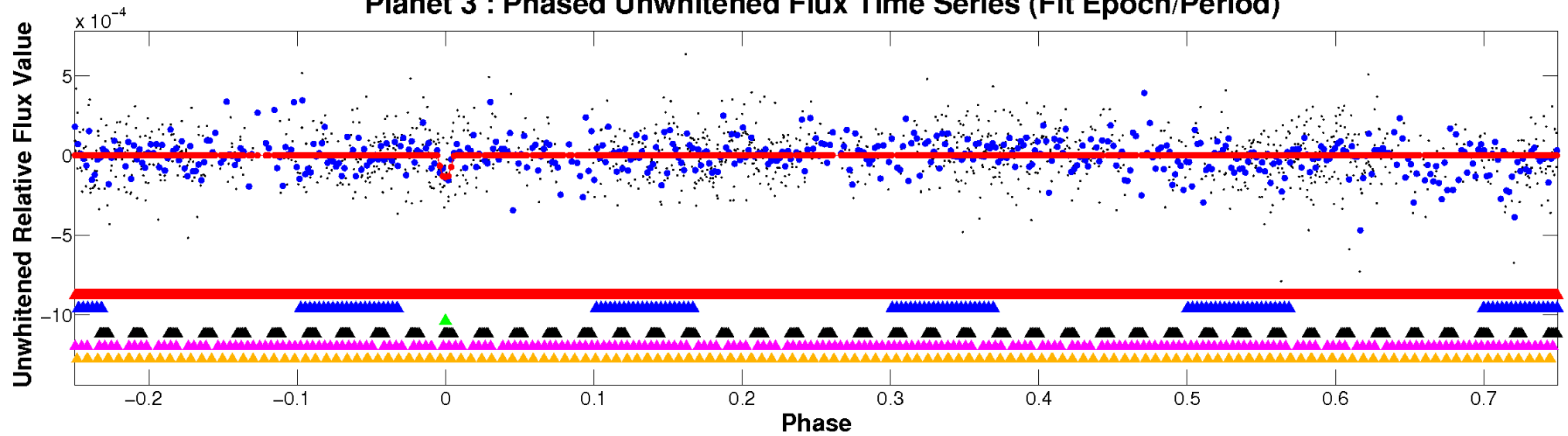


ALT Odd/Even

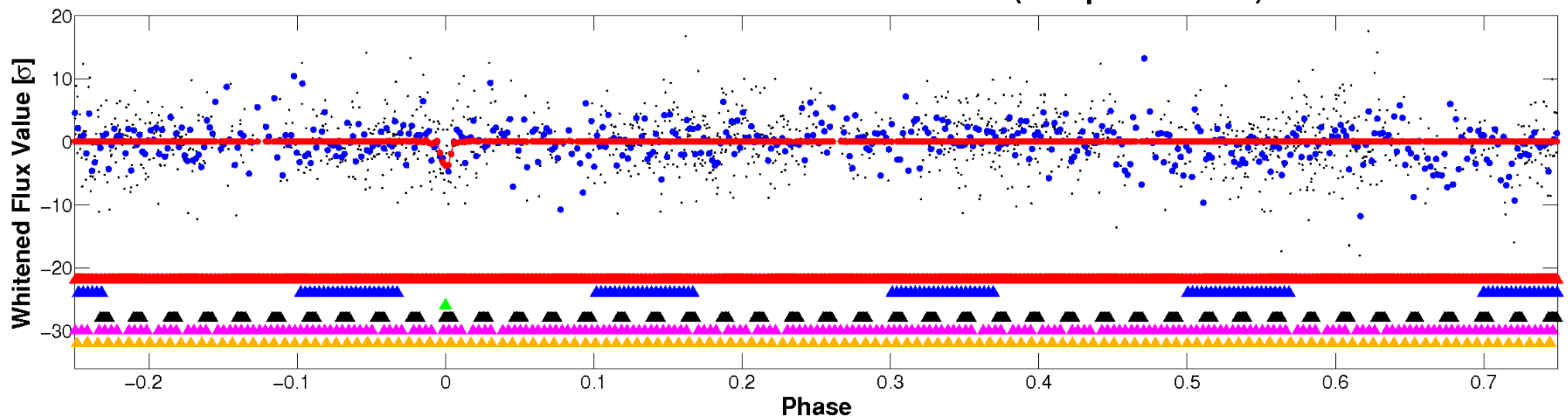
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

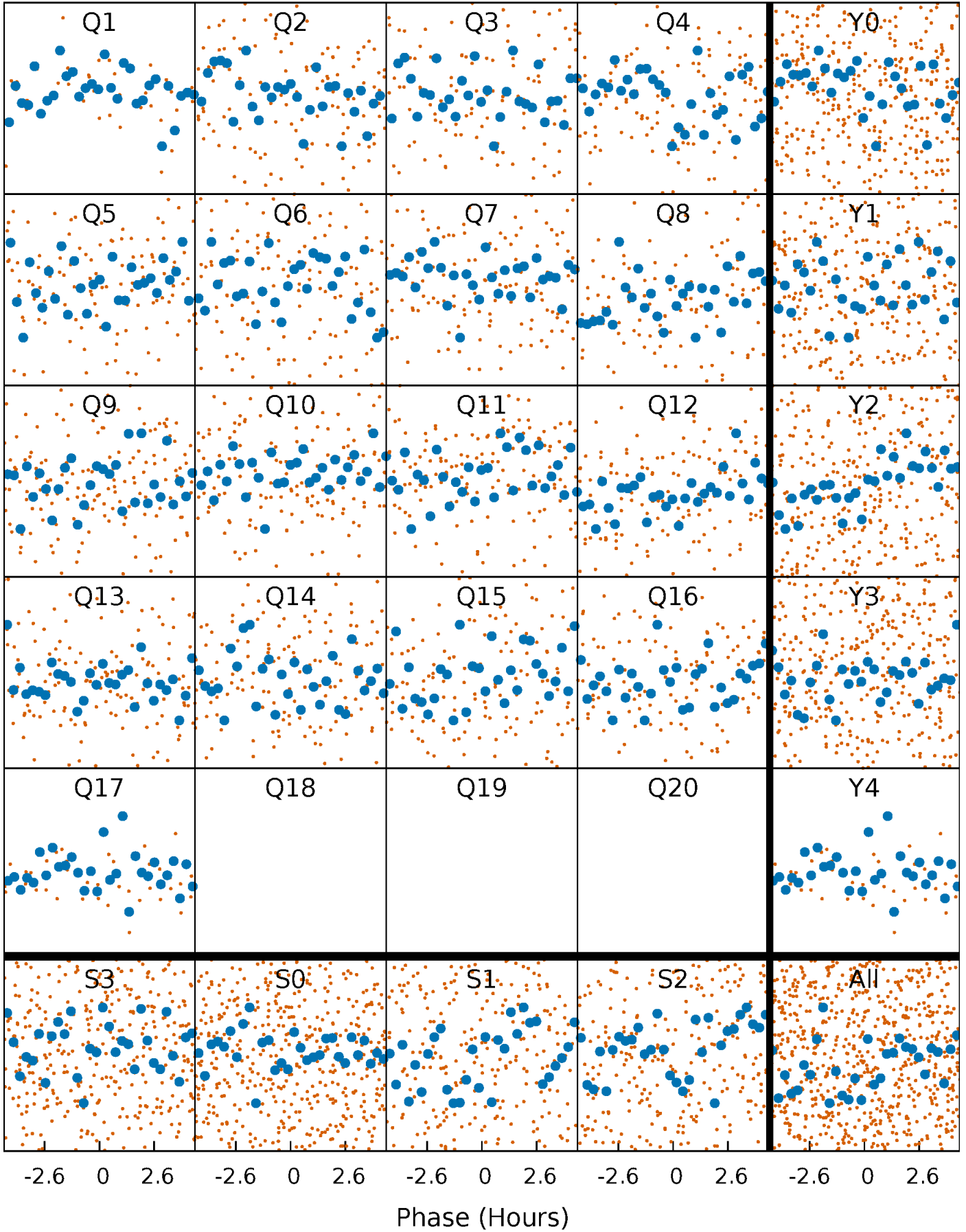


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



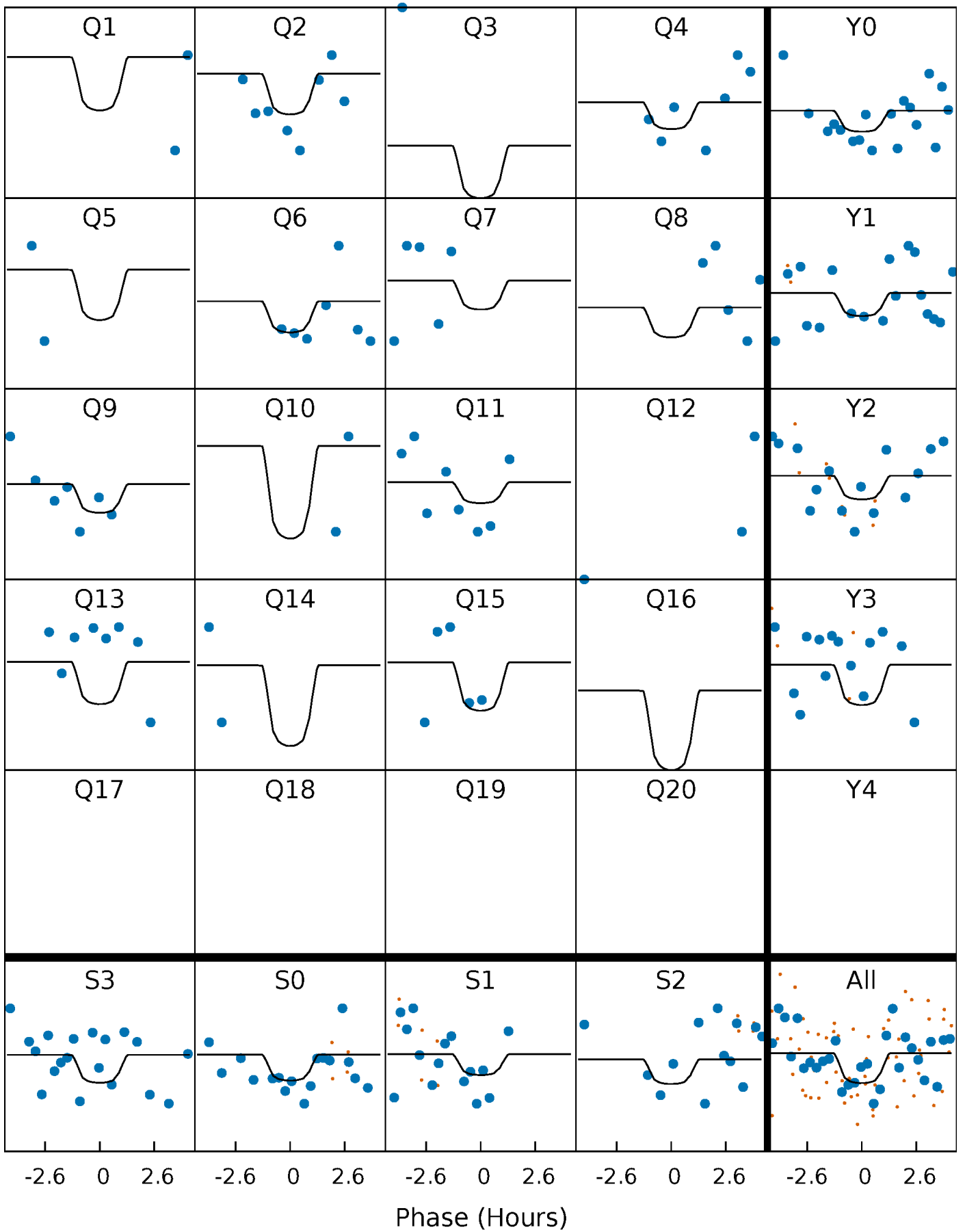
PDC Quarter-Phased Transit Curves

TCE 007281979-03 P= 10.798999 Days $T_0=140.443167$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281979-03 P= 10.798999 Days $T_0=140.443167$ (BKJD)

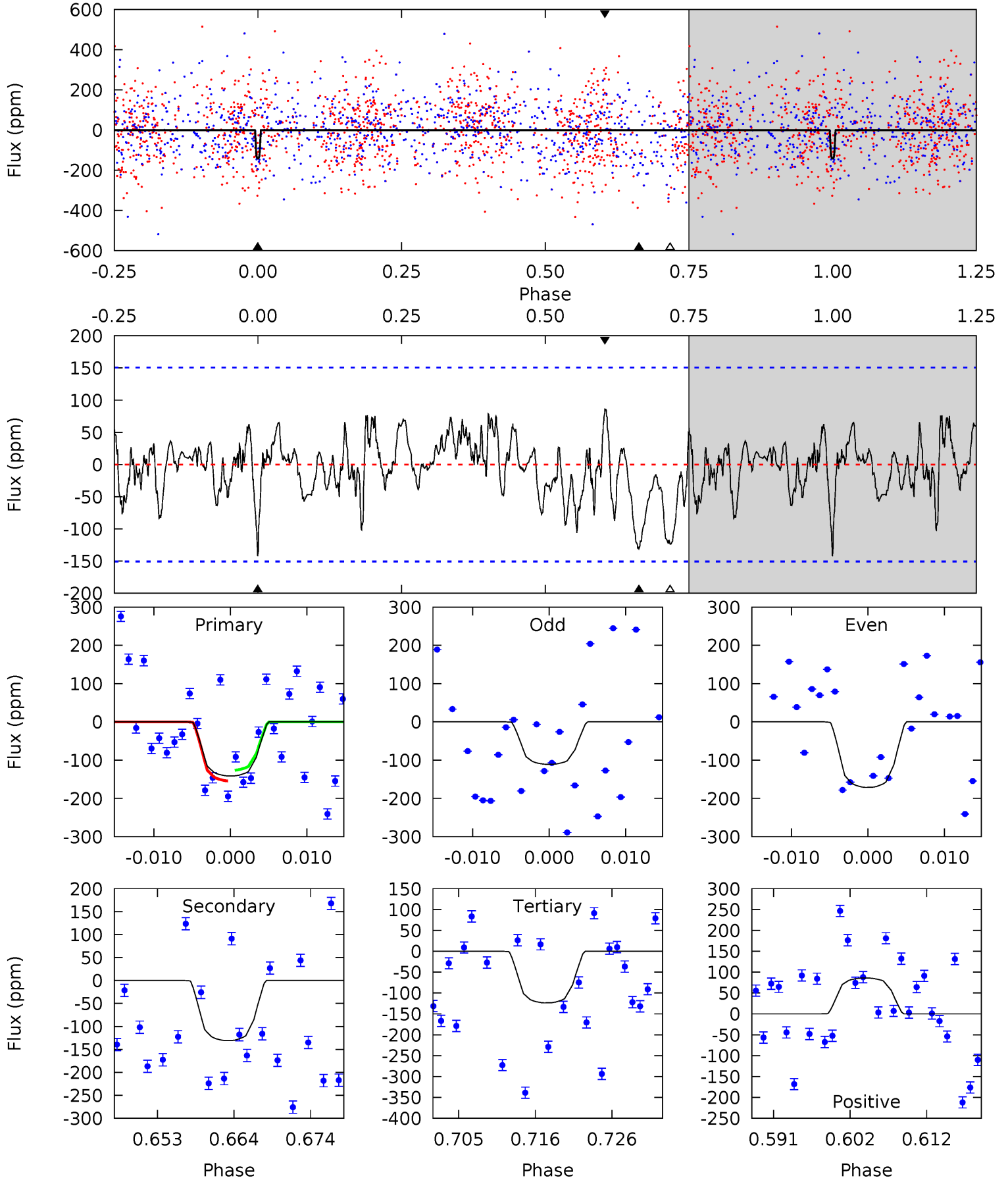


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281979-03, P = 10.798999 Days, E = 129.644168 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.71	4.36	4.12	2.86	5.02	2.56	1.34	0.59	1.85	0.24	1.50	1.00	0	0.38	0.47



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281979

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5874^{+176}_{-132}	$3.872^{+0.315}_{-0.105}$	$-0.300^{+0.350}_{-0.250}$	$1.991^{+0.364}_{-0.676}$	$1.076^{+0.175}_{-0.175}$	$0.192^{+0.386}_{-0.073}$
	+3%/-2%	+8%/-3%	+117%/-83%	+18%/-34%	+16%/-16%	+201%/-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 007281979-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-131 ± 30	$5.13^{+5.21}_{-3.53}$	1609^{+100}_{-140}	4129^{+2949}_{-772}	24^{+226}_{-17}
Alt.	N/A	N/A	N/A	N/A	N/A

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

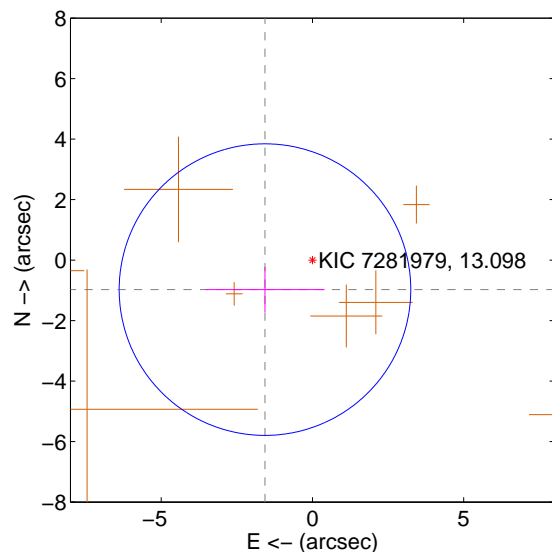
Supplemental centroid analysis for 007281979-03. Kepler magnitude: 13.10. Transit SNR 14.56

There are 0 quarters with good PRF difference image offsets

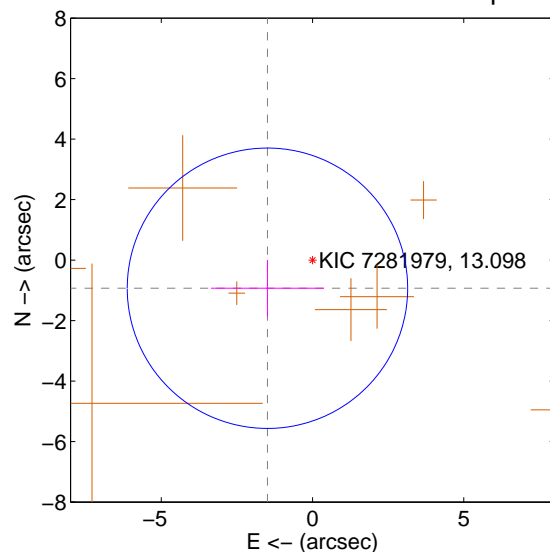
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.848 ± 1.607	1.15	1.570 ± 1.969	-0.976 ± 0.748
PRF-fit source offset from KIC position	1.757 ± 1.545	1.14	1.490 ± 1.866	-0.931 ± 0.938
photometric centroid source offset	1.16 ± 0.55	2.11	-0.68 ± 0.60	0.94 ± 0.52

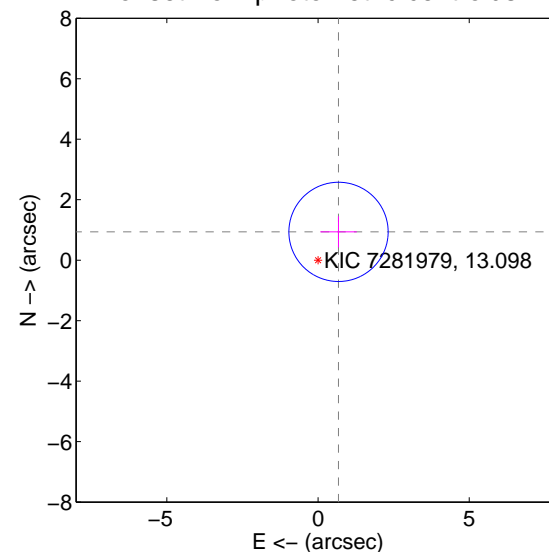
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

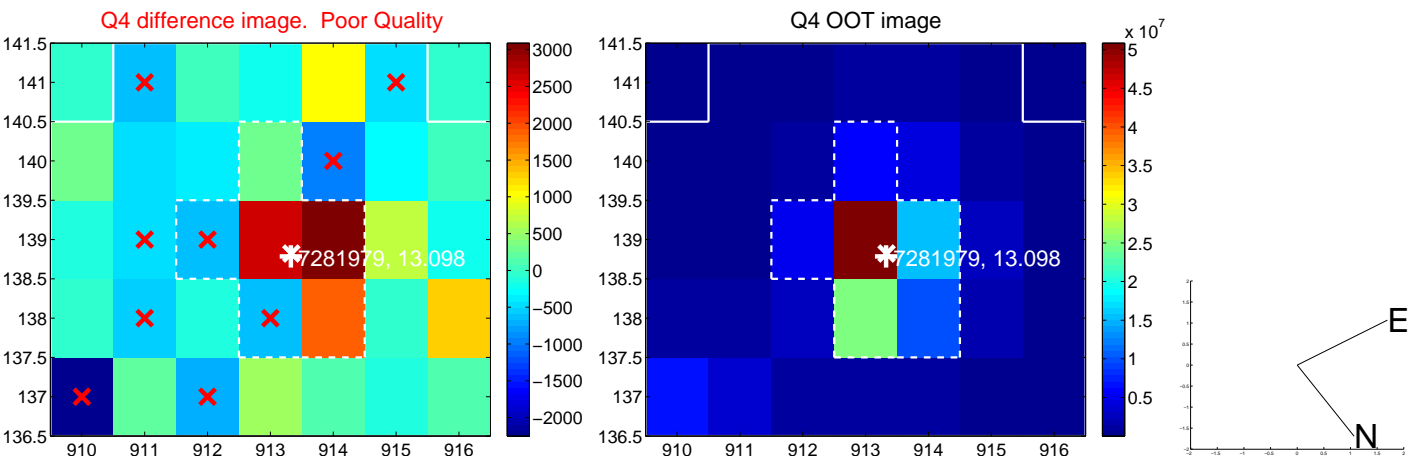
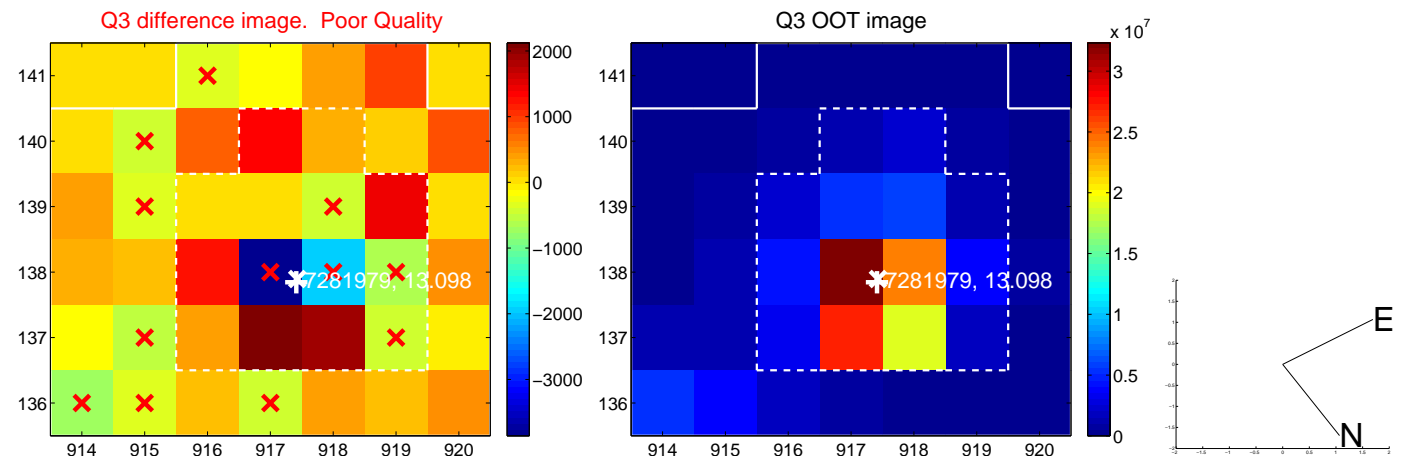
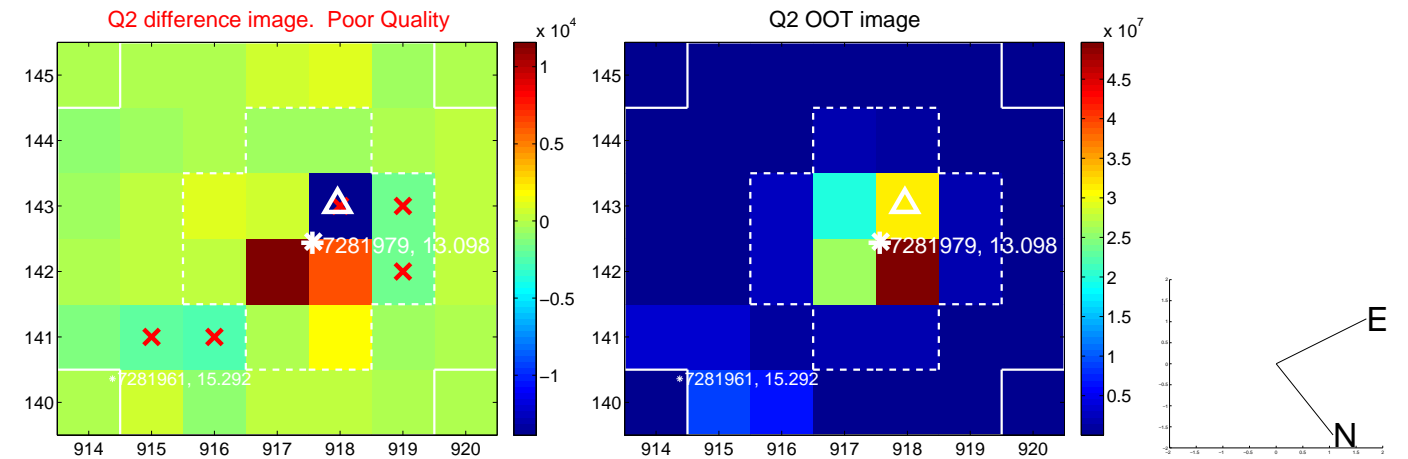
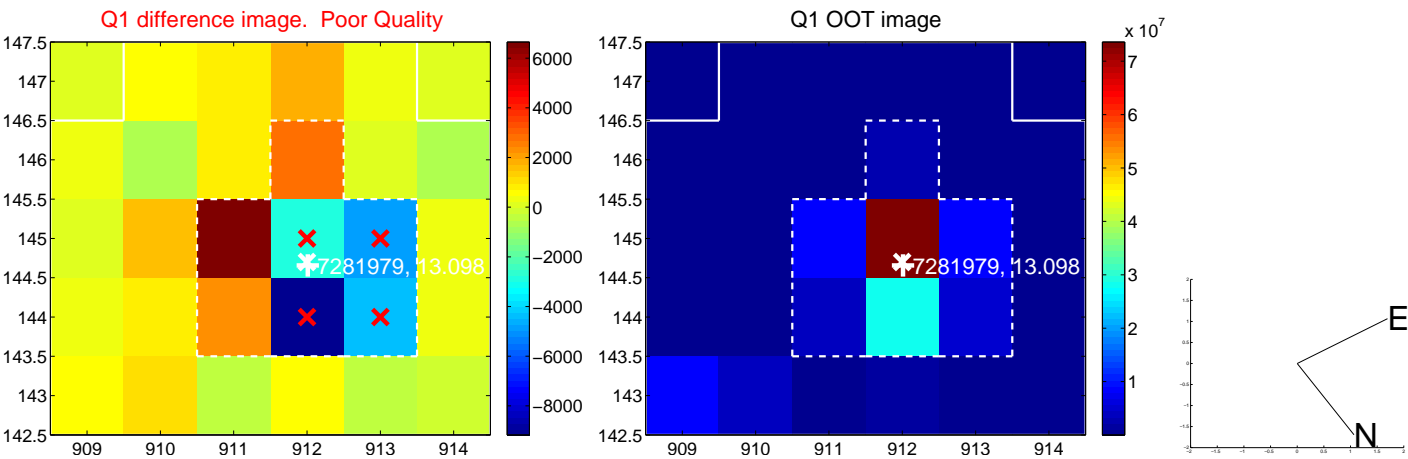


offset from photometric centroids

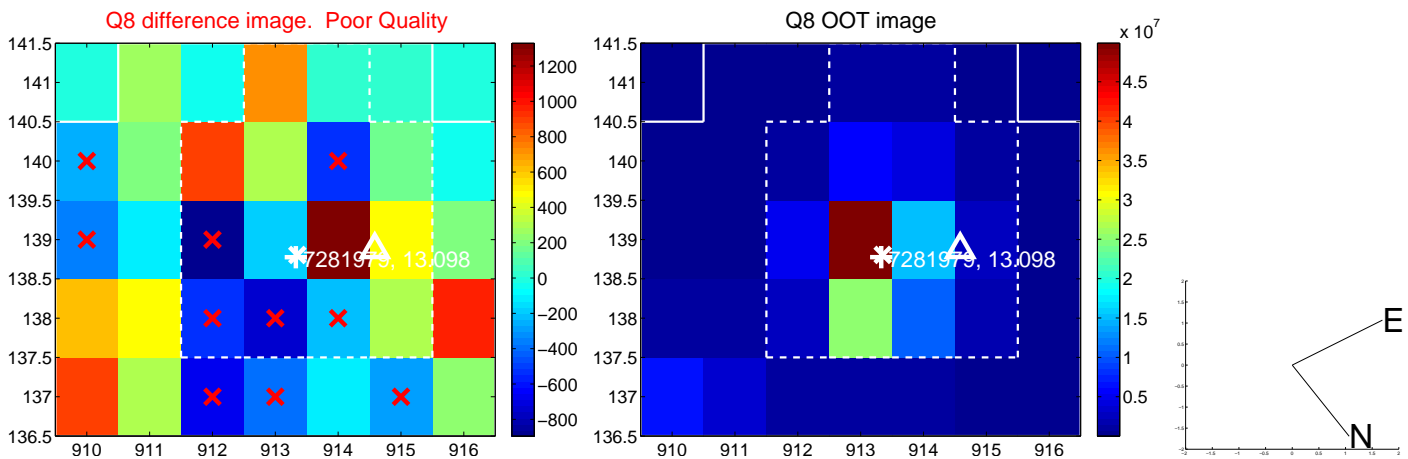
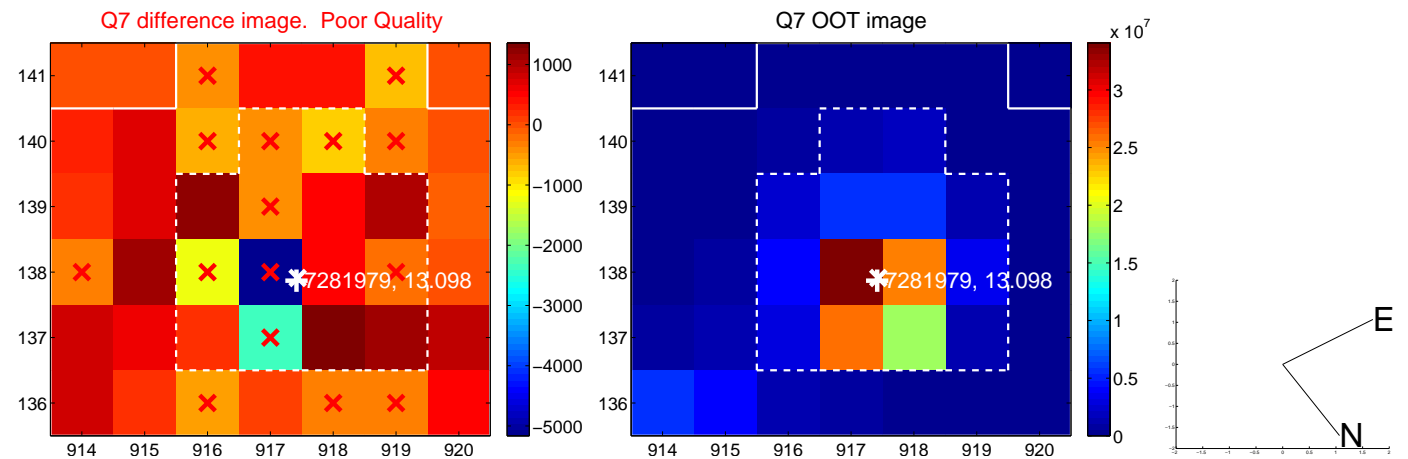
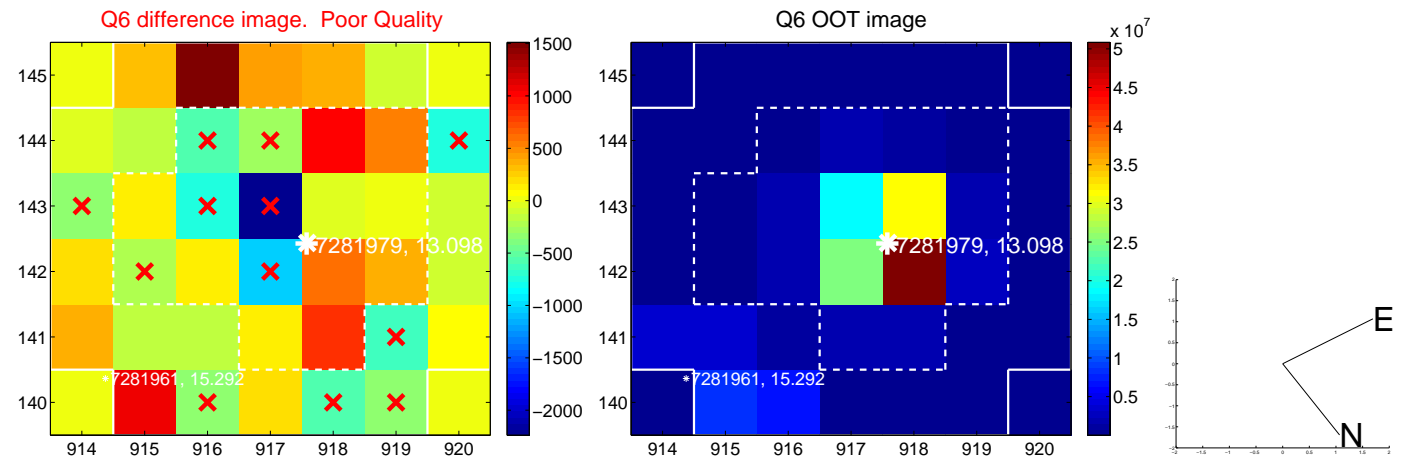
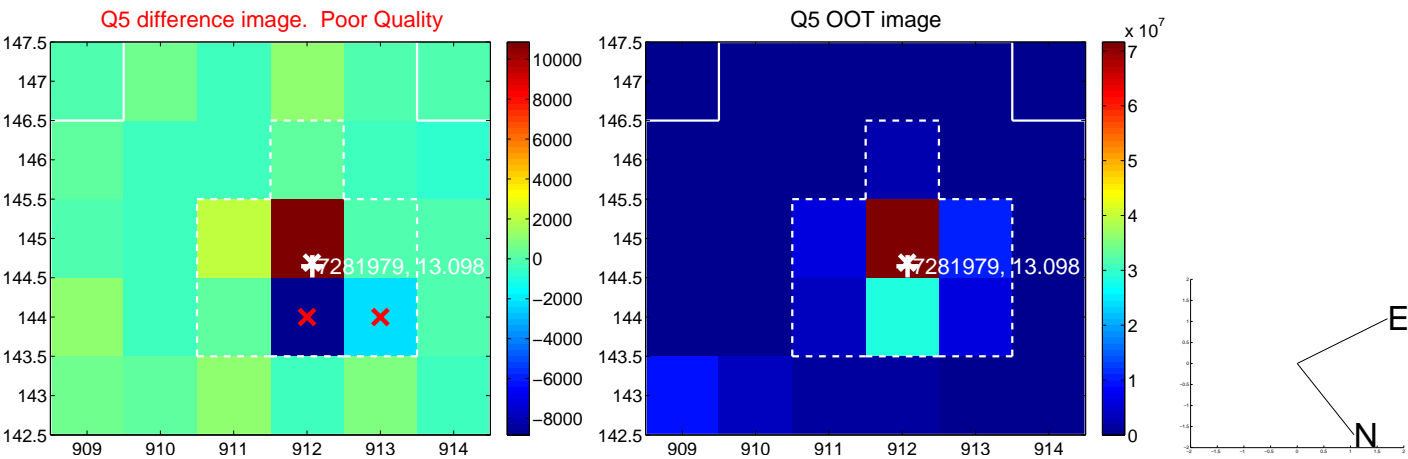


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

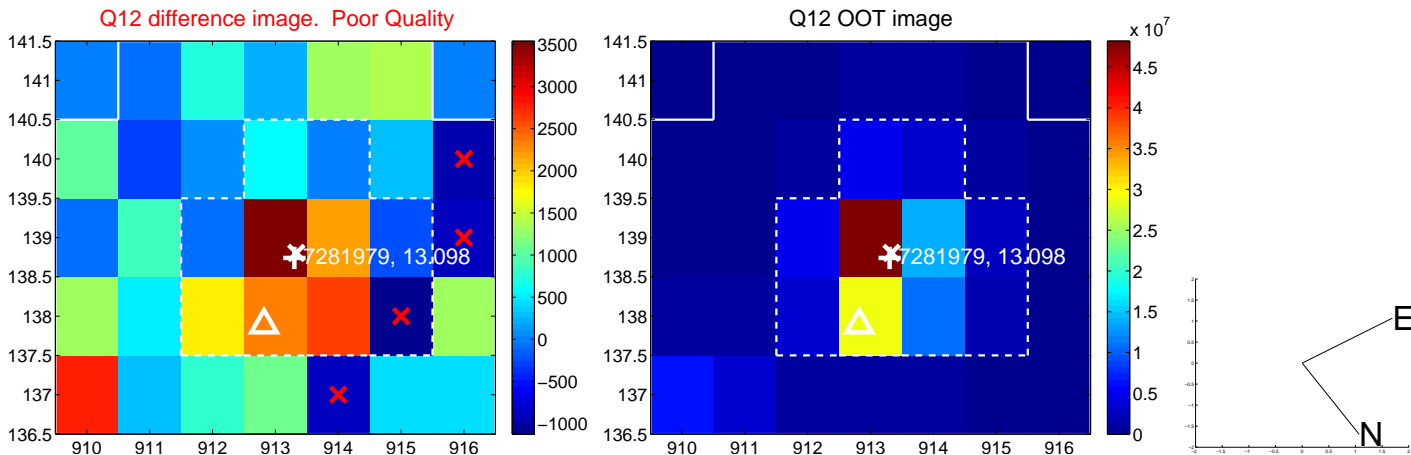
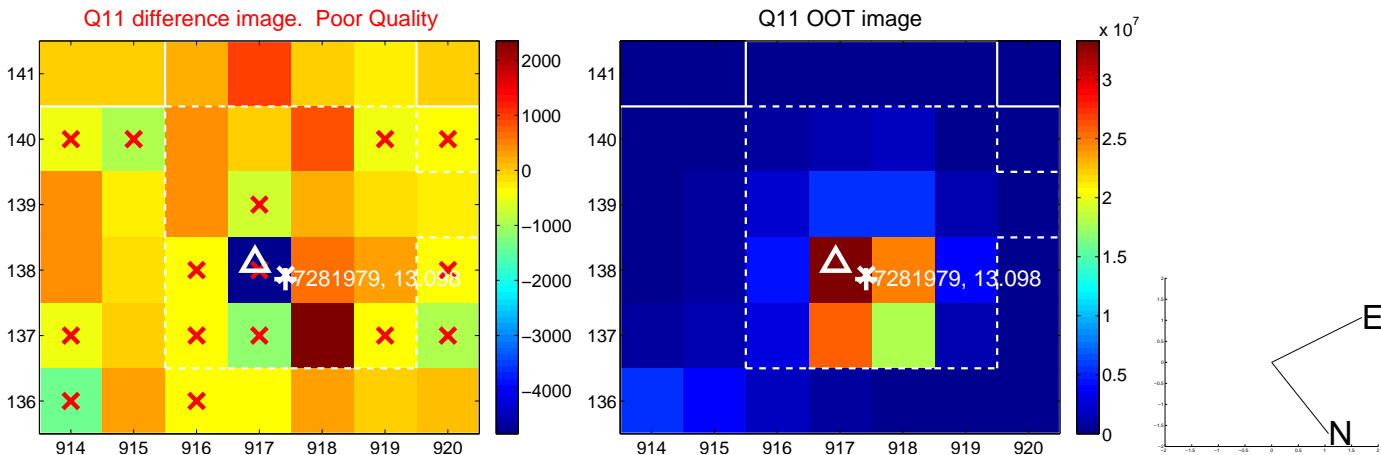
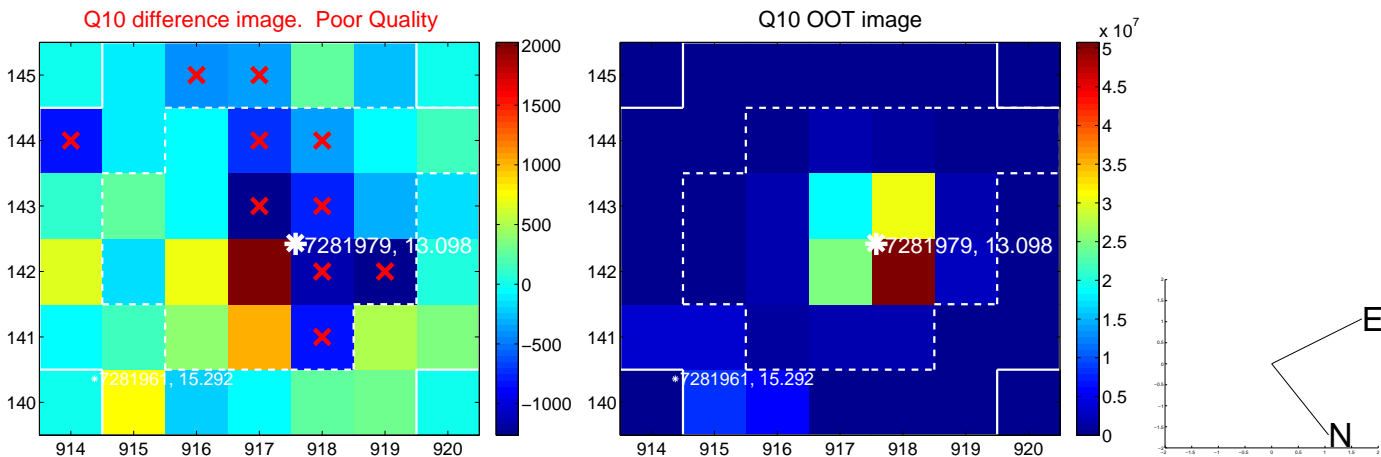
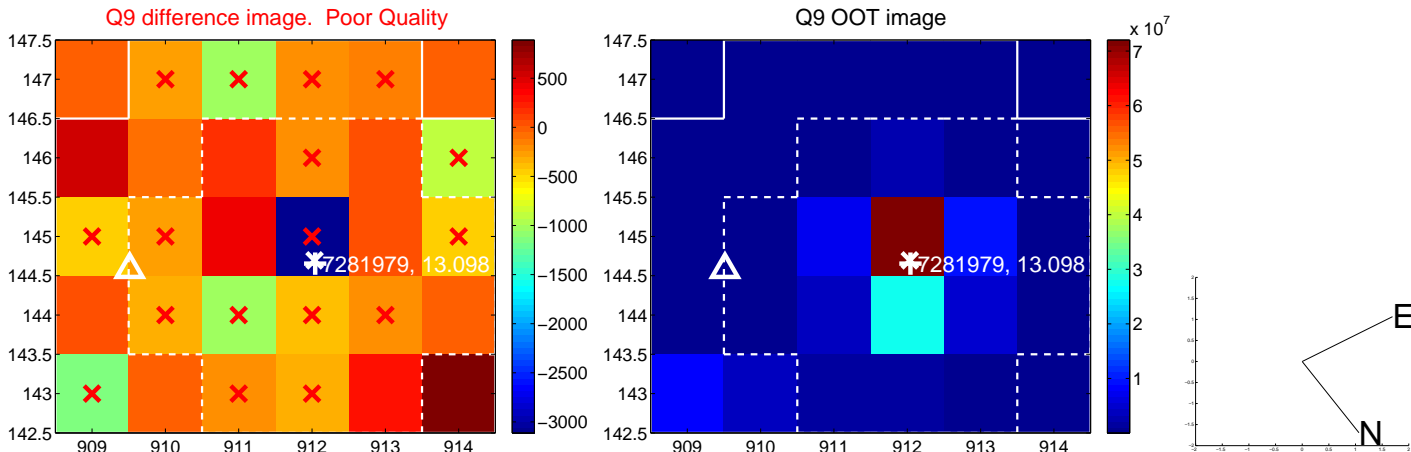
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



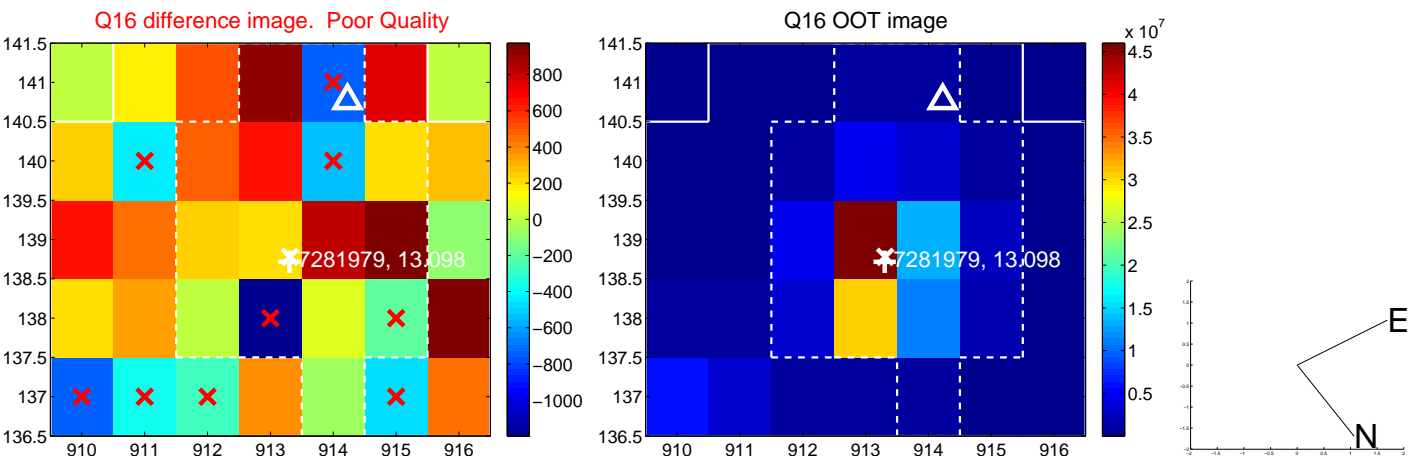
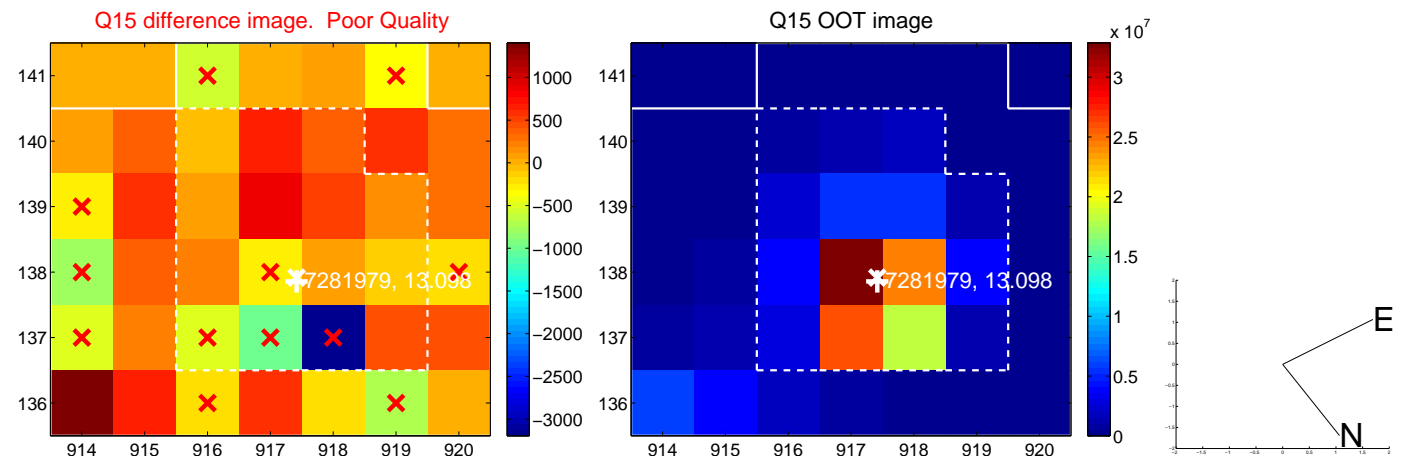
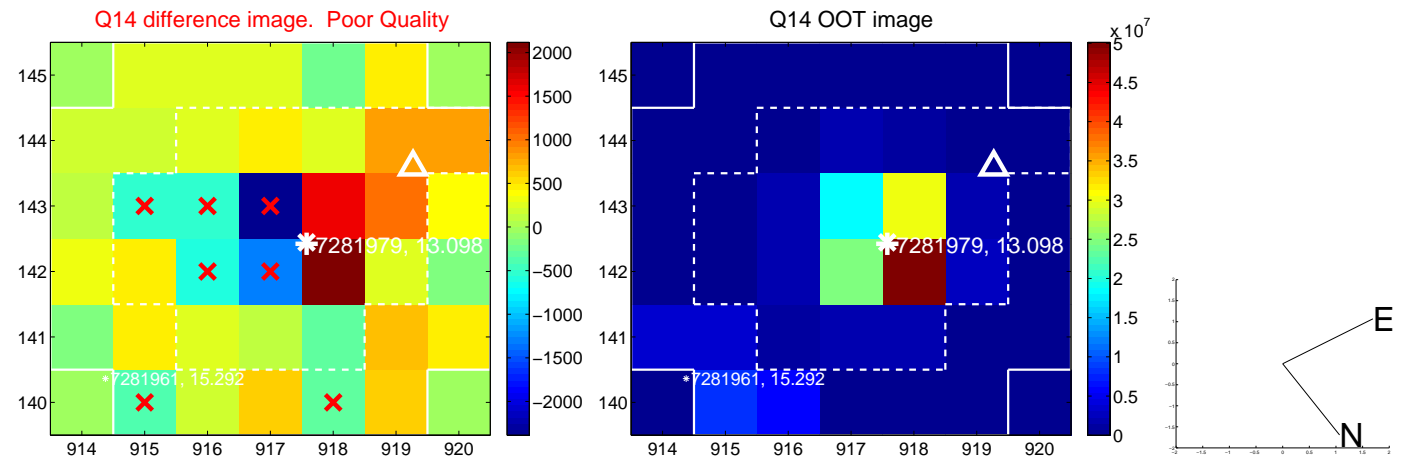
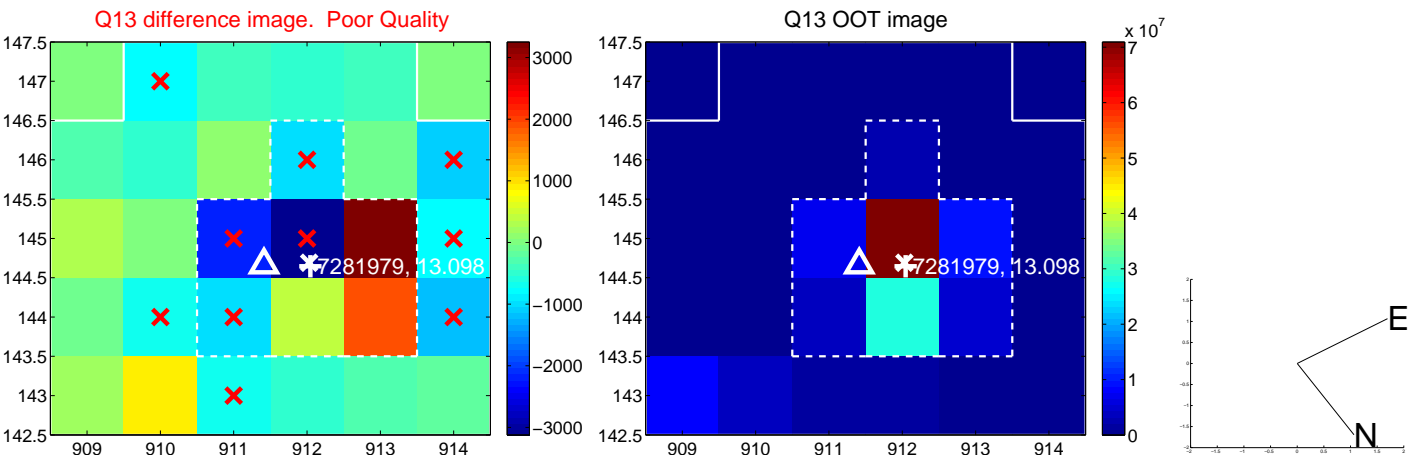
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



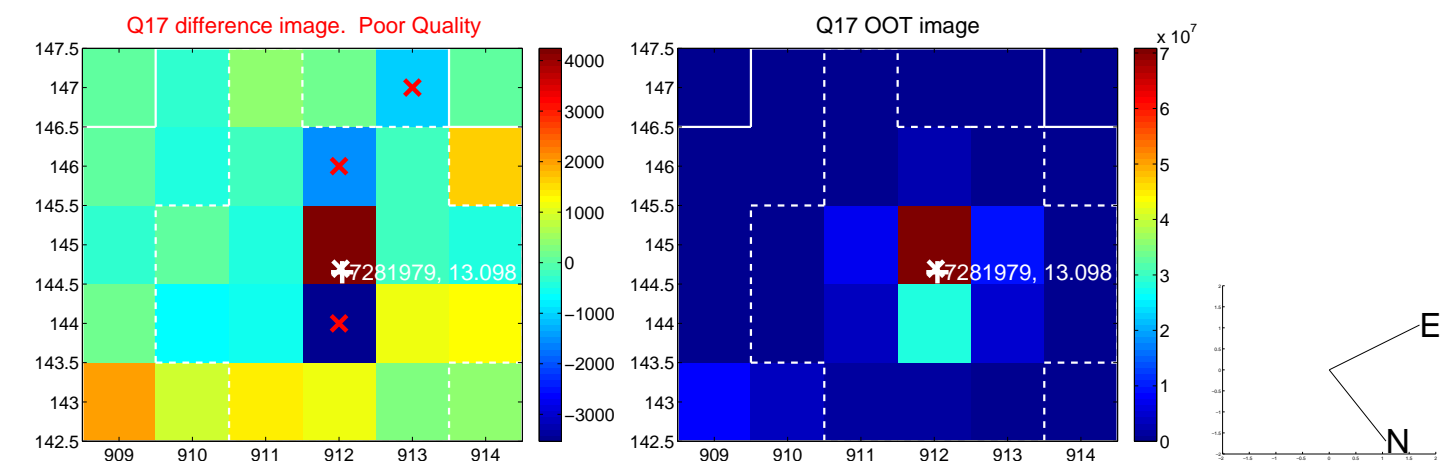
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



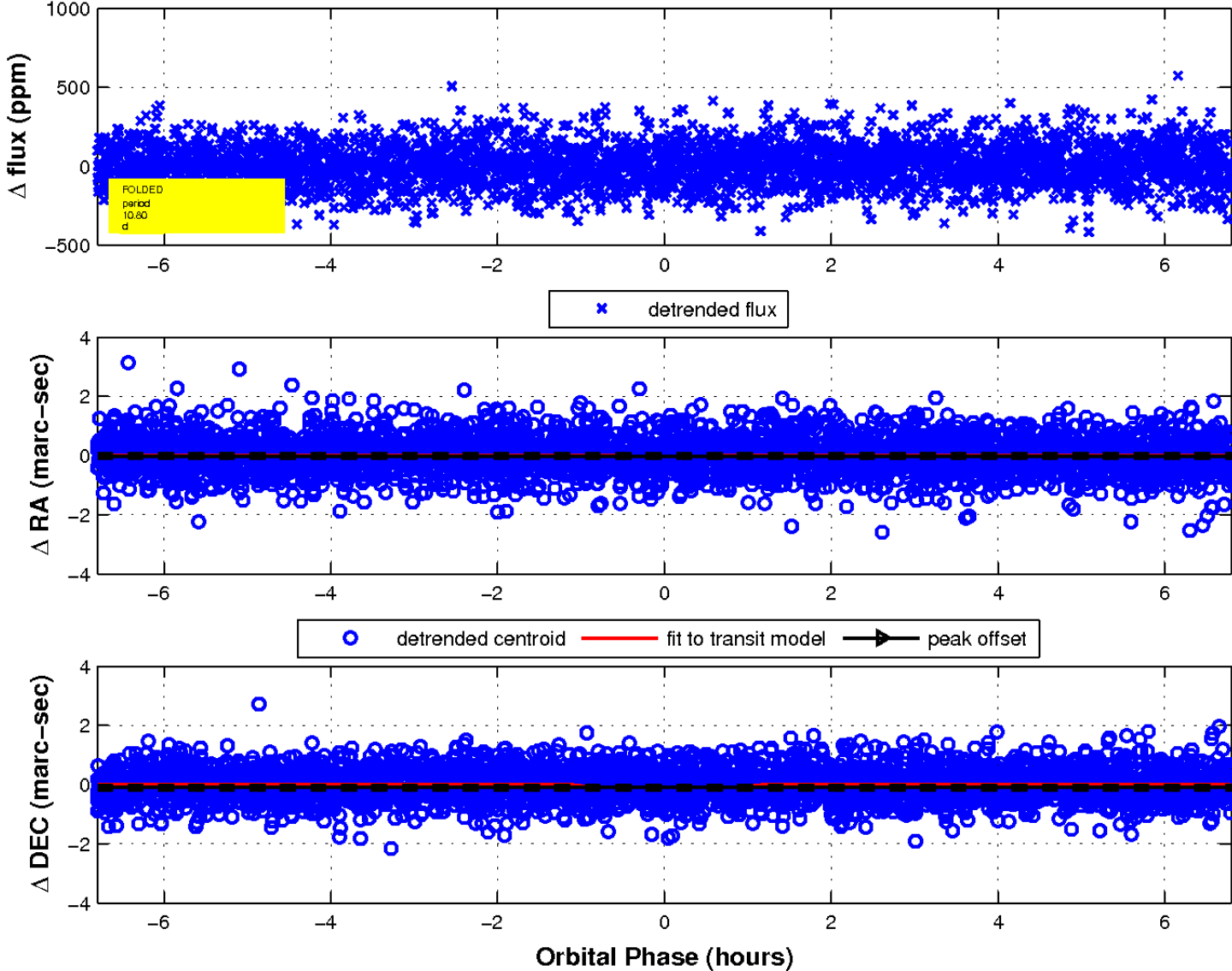
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

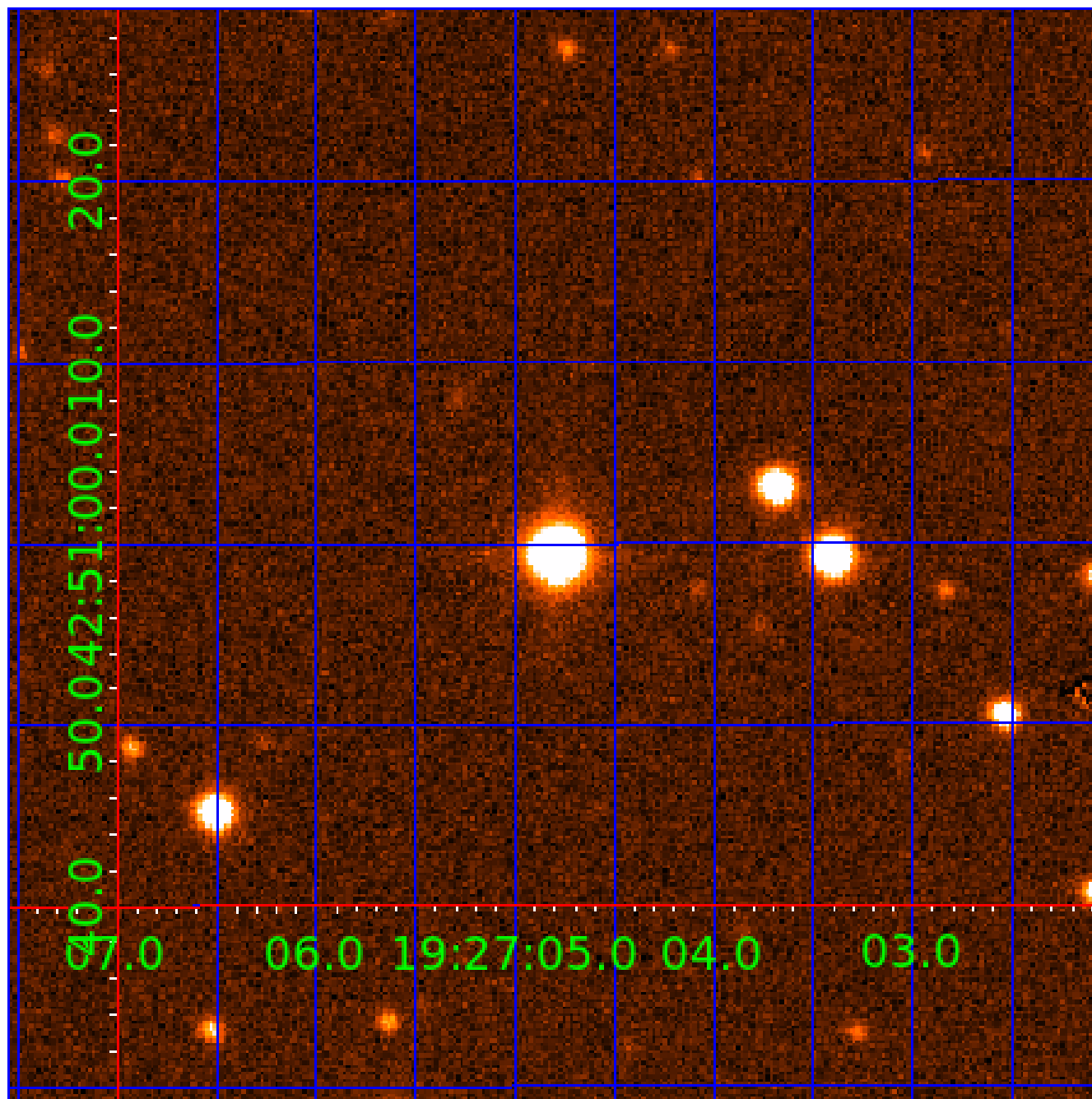


fluxWeightedCentroids, Planet 3 of 6



UKIRT Image

Declination



KIC 007281979

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})
007281979-01	OBS	No	0.566775	131.860975	15.1	4.261	10.9	12.4	1.99	5874	0.77	22393.92
007281979-02	OBS	No	12.952108	133.632474	165.8	1.263	9.1	11.8	1.99	5874	2.57	345.32
007281979-03	OBS	No	10.798999	140.443167	137.8	2.268	8.0	14.6	1.99	5874	2.76	440.05
007281979-04	OBS	No	5.776498	132.395369	652.8	1.500	14.1	-1.0	1.99	5874	5.09	1013.42
007281979-05	OBS	No	6.436181	135.591973	247.7	1.366	9.8	16.7	1.99	5874	3.17	877.35
007281979-06	OBS	No	8.608937	134.065177	282.3	0.944	11.4	17.4	1.99	5874	3.72	595.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281979-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_FEW_DIFFS—EPHEM_MATCH
007281979-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
007281979-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281979-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS
007281979-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007281979-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

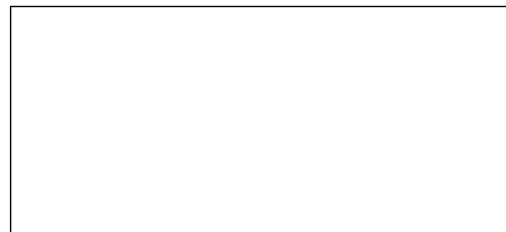
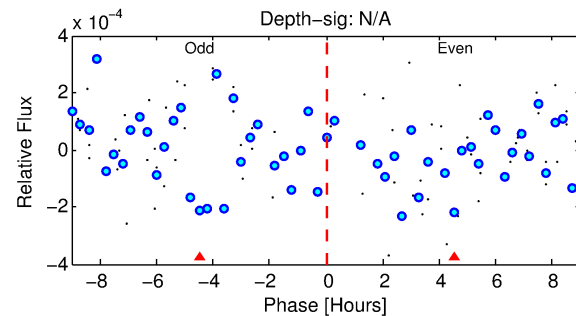
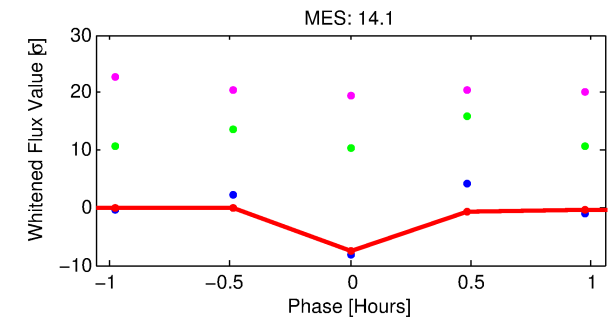
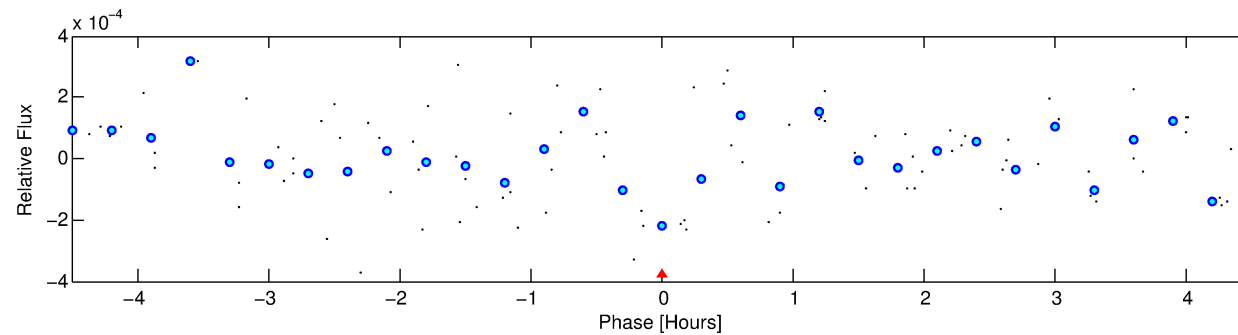
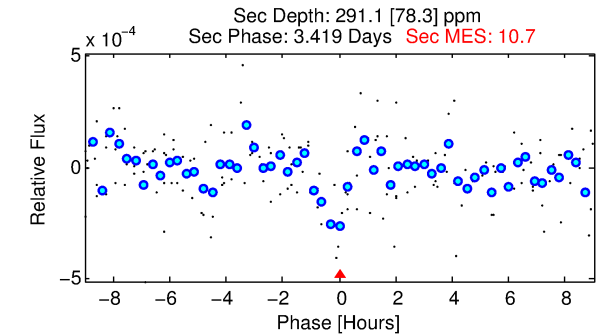
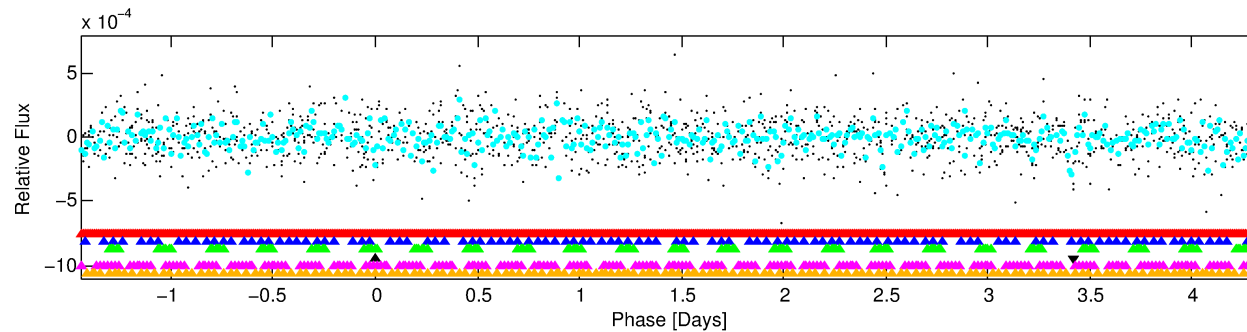
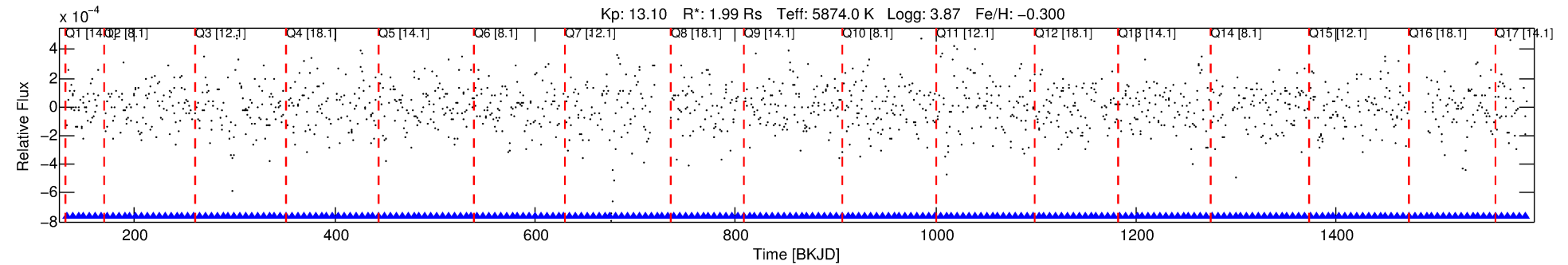
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007281979-04

No Significant Match Found

DV One-Page Summary

KIC: 7281979 Candidate: 4 of 6 Period: 5.776 d



TPS TCE Results:

Period = 5.77650 d
Epoch = 132.3954 BKJD

DV fit results are unavailable

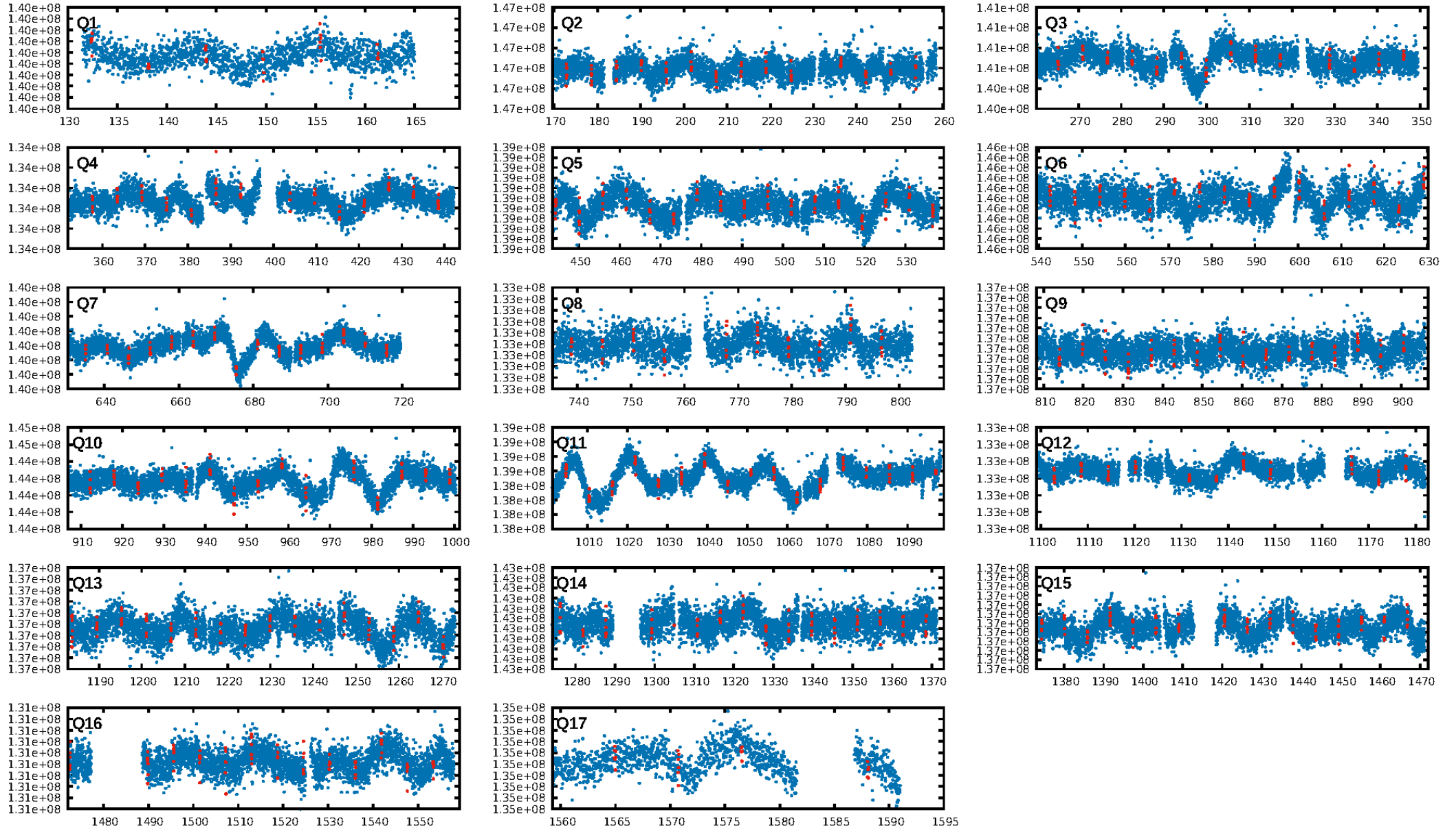
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [27.68σ]
LongPeriod-sig: 100.0% [7.80σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

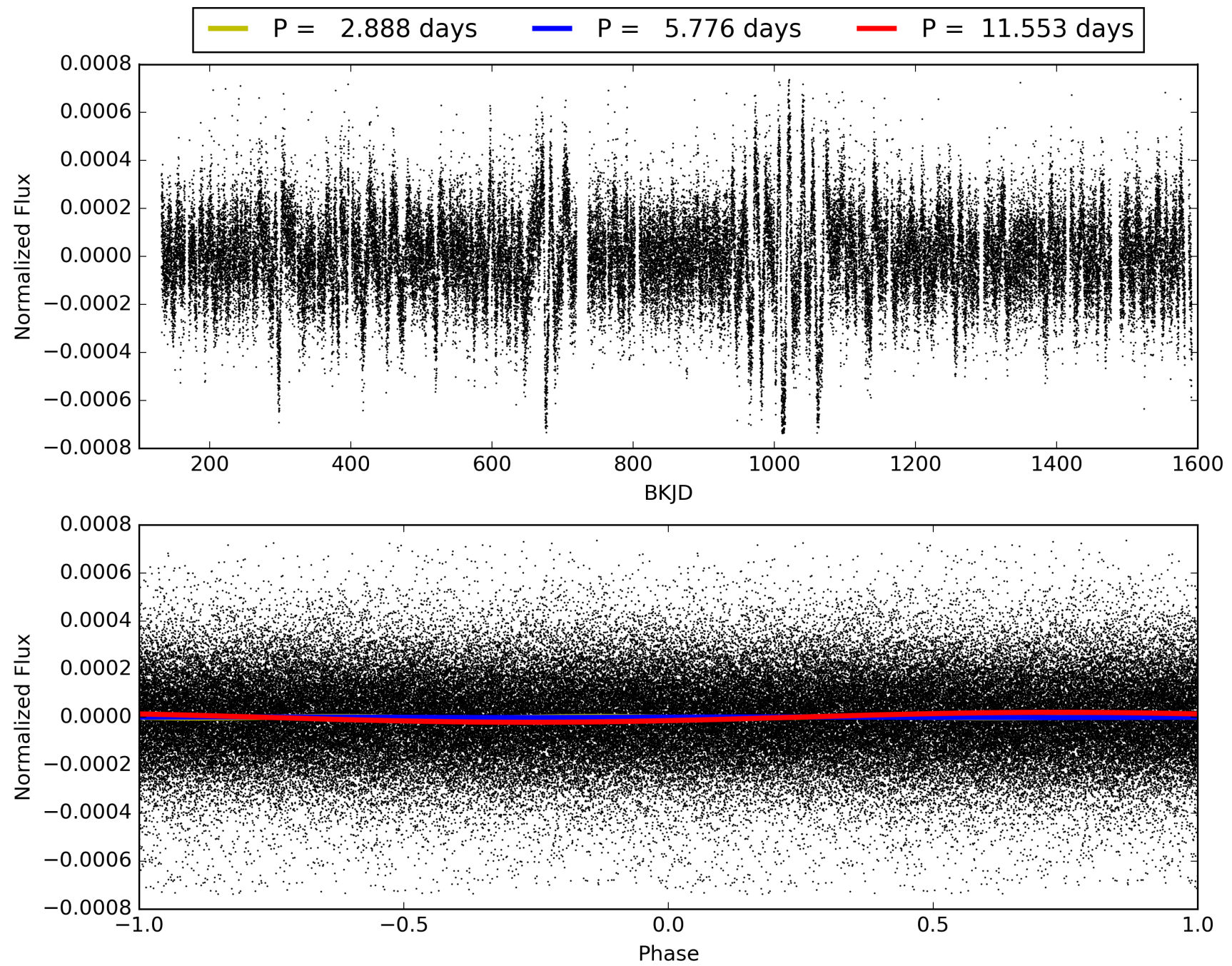
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:22:25 Z

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

TCE 007281979-04, PDC Light Curves

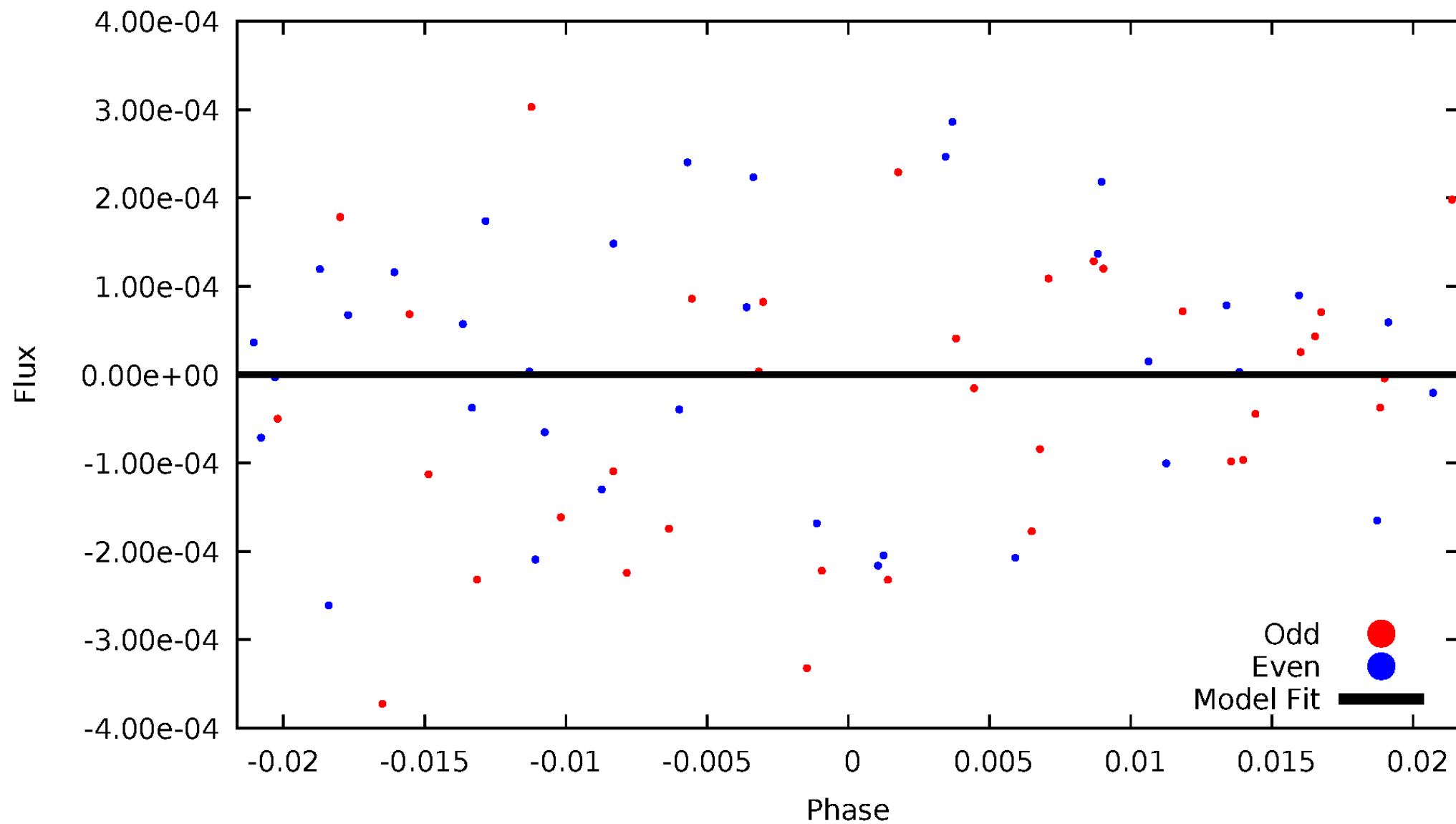


TCE 007281979-04



DV Odd/Even

TCE 007281979-04

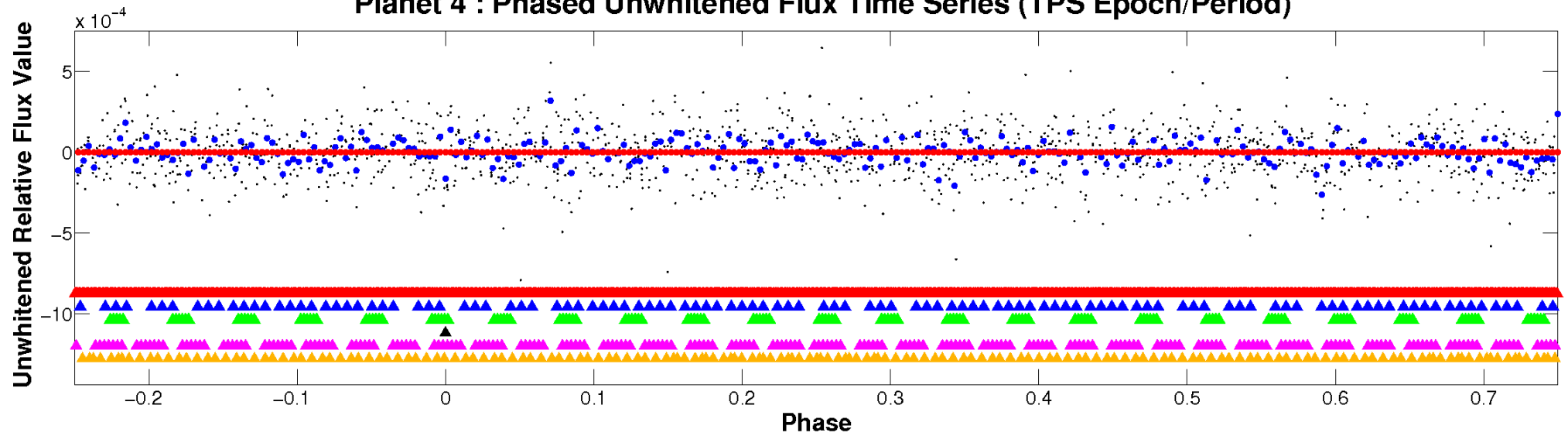


ALT Odd/Even

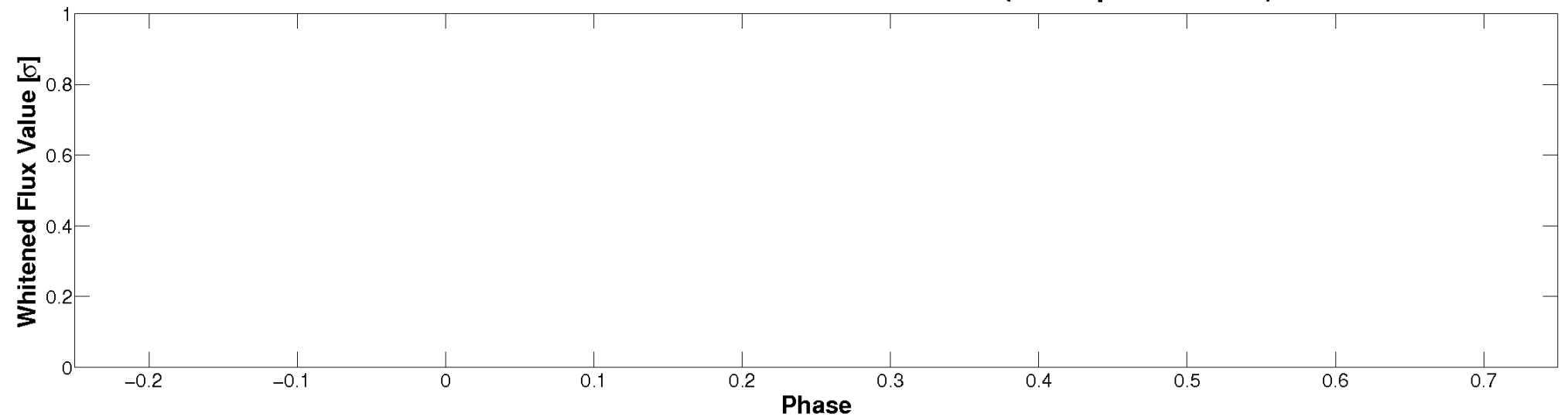
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

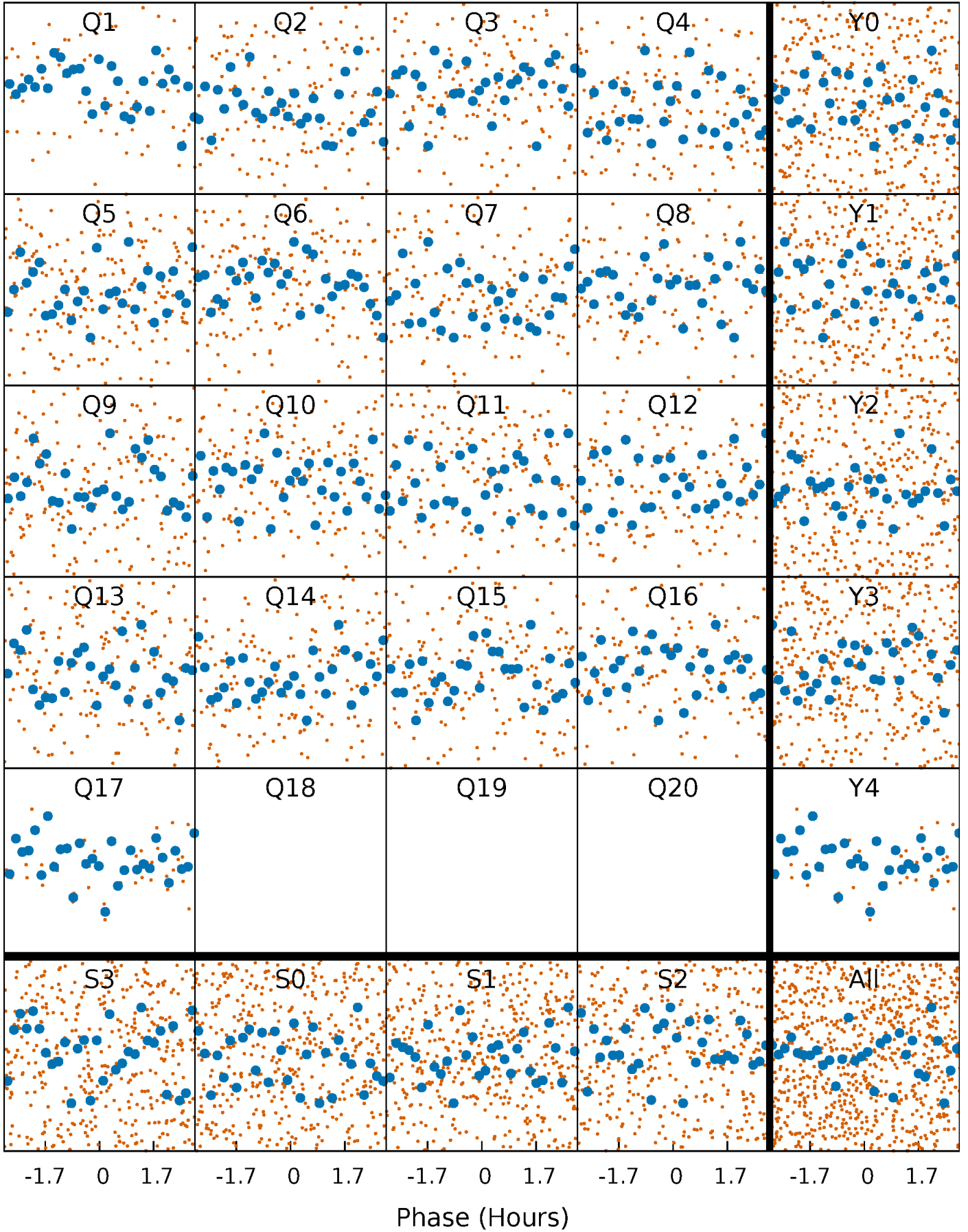


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



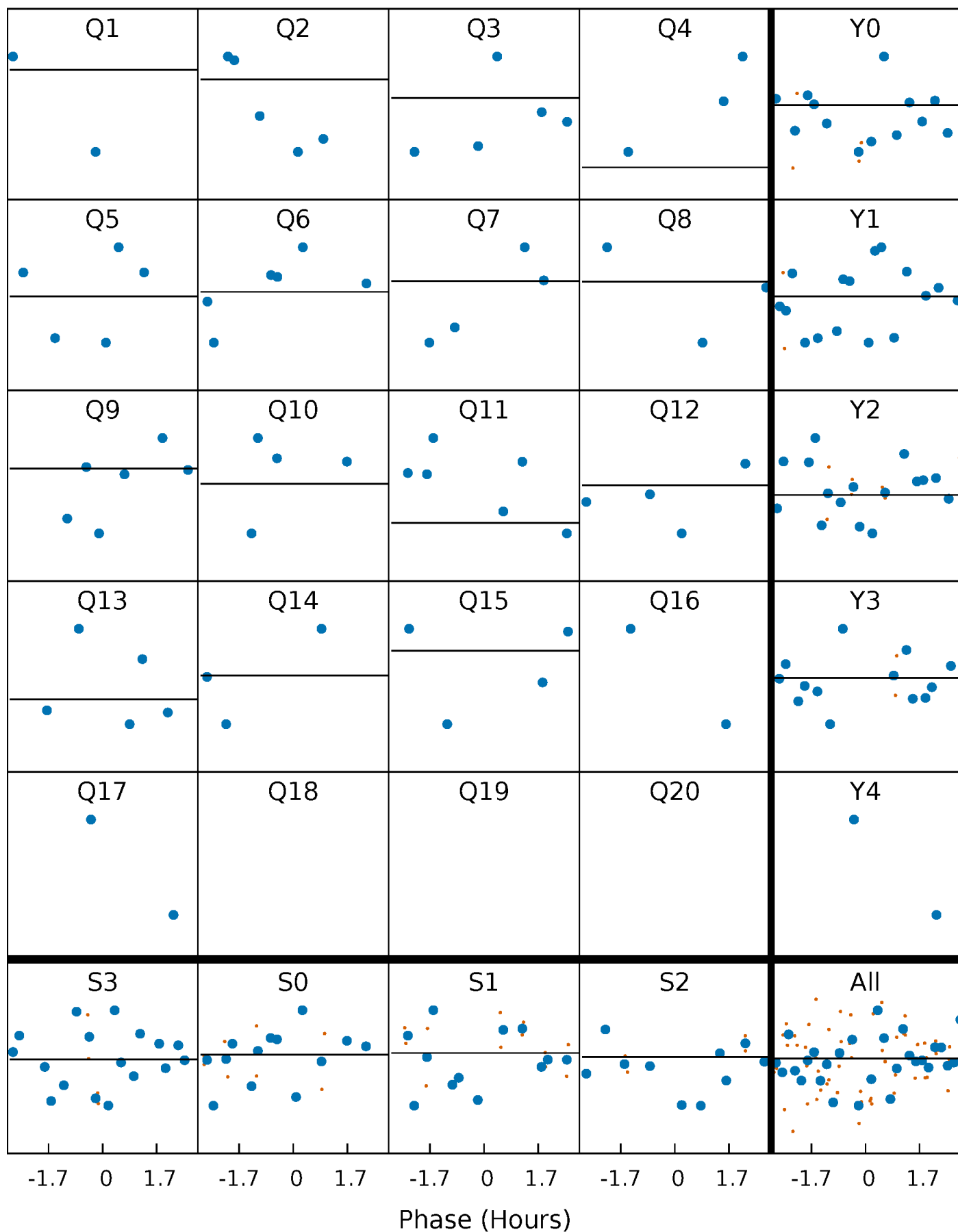
PDC Quarter-Phased Transit Curves

TCE 007281979-04 P= 5.776498 Days $T_0=132.395369$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281979-04 P= 5.776498 Days $T_0=132.395369$ (BKJD)

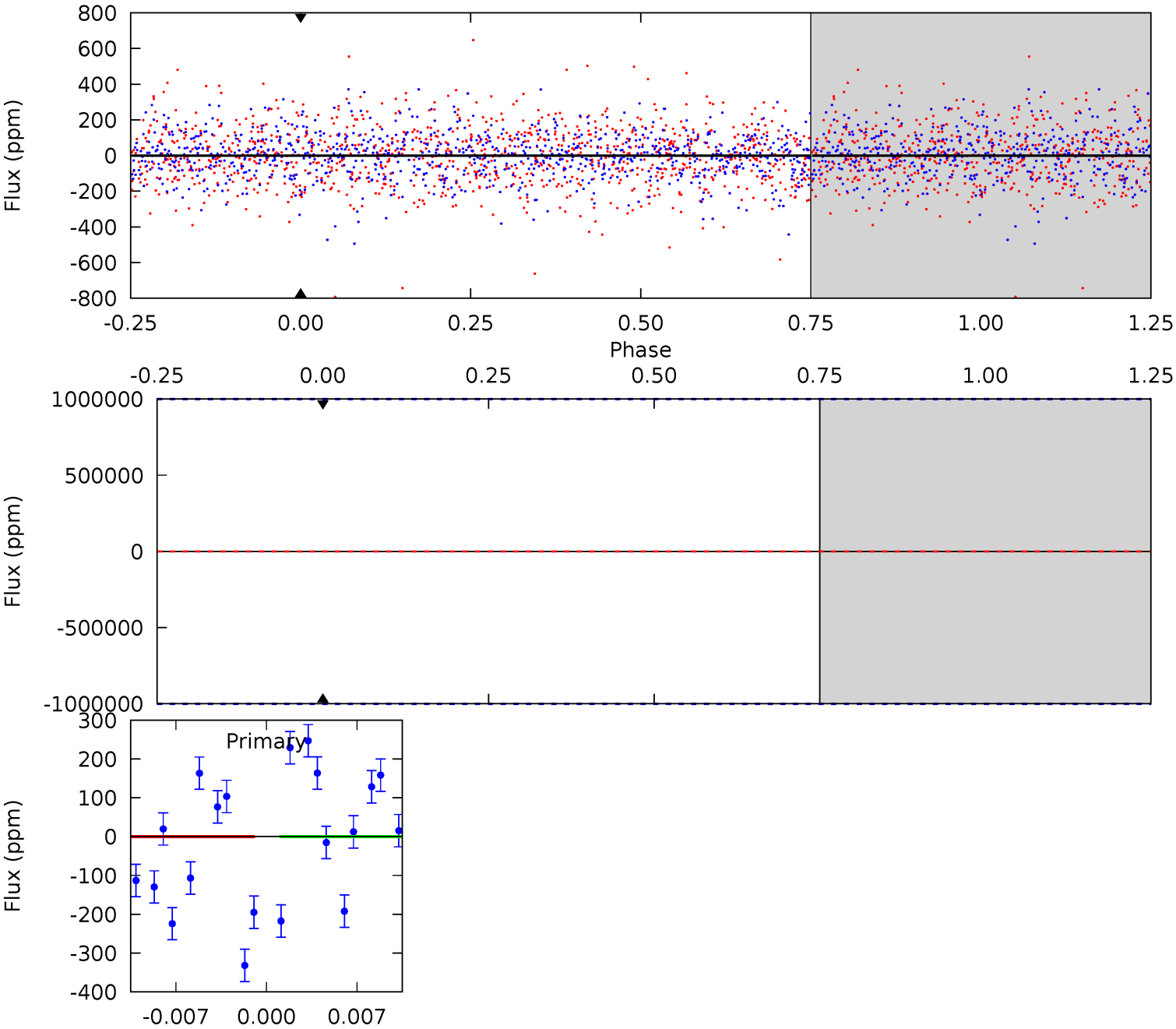


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281979-04, P = 5.776498 Days, E = 126.618871 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

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281979

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5874^{+176}_{-132}	$3.872^{+0.315}_{-0.105}$	$-0.300^{+0.350}_{-0.250}$	$1.991^{+0.364}_{-0.676}$	$1.076^{+0.175}_{-0.175}$	$0.192^{+0.386}_{-0.073}$
	+3%/-2%	+8%/-3%	+117%/-83%	+18%/-34%	+16%/-16%	+201%/-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 007281979-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$15.87^{+16.40}_{-11.07}$	1984^{+130}_{-165}	2976^{+20147}_{-22705}	$1.314^{+1814.159}_{-1613.566}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

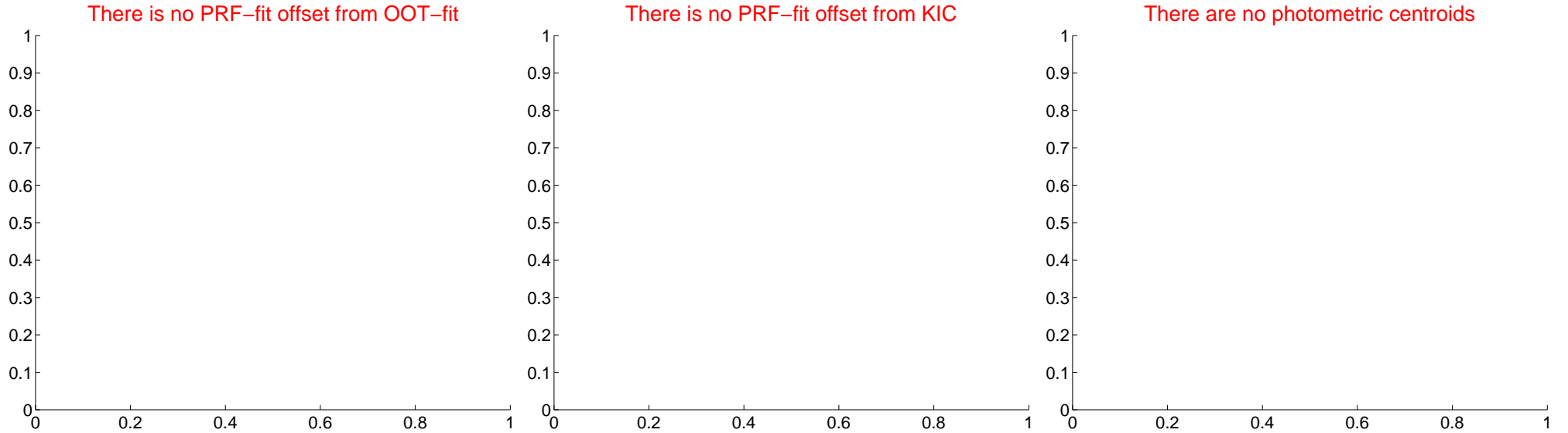
DV Centroid Data

Supplemental centroid analysis for 007281979-04. Kepler magnitude: 13.10. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—



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.



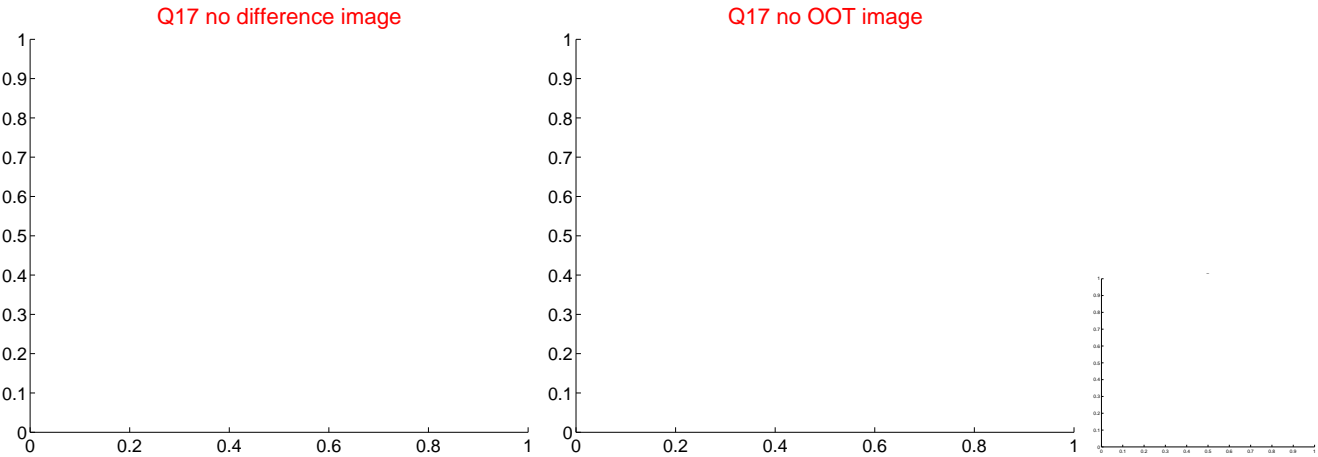
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



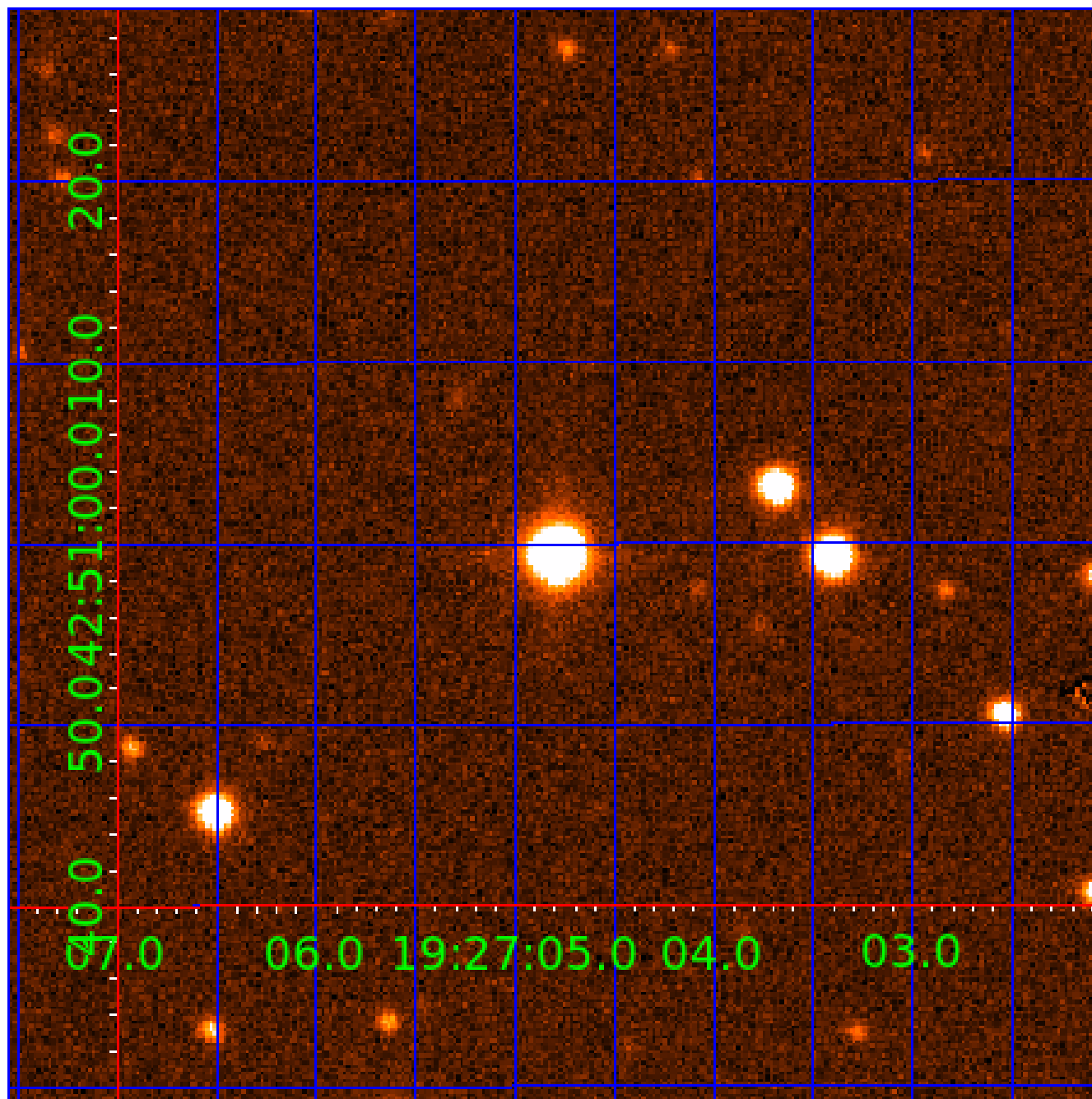
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 007281979

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})
007281979-01	OBS	No	0.566775	131.860975	15.1	4.261	10.9	12.4	1.99	5874	0.77	22393.92
007281979-02	OBS	No	12.952108	133.632474	165.8	1.263	9.1	11.8	1.99	5874	2.57	345.32
007281979-03	OBS	No	10.798999	140.443167	137.8	2.268	8.0	14.6	1.99	5874	2.76	440.05
007281979-04	OBS	No	5.776498	132.395369	652.8	1.500	14.1	-1.0	1.99	5874	5.09	1013.42
007281979-05	OBS	No	6.436181	135.591973	247.7	1.366	9.8	16.7	1.99	5874	3.17	877.35
007281979-06	OBS	No	8.608937	134.065177	282.3	0.944	11.4	17.4	1.99	5874	3.72	595.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281979-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_FEW_DIFFS—EPHEM_MATCH
007281979-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
007281979-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281979-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS
007281979-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007281979-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

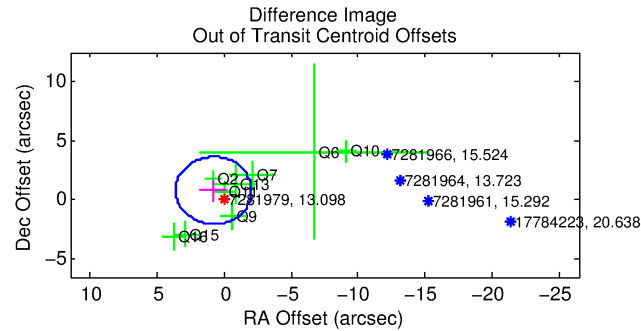
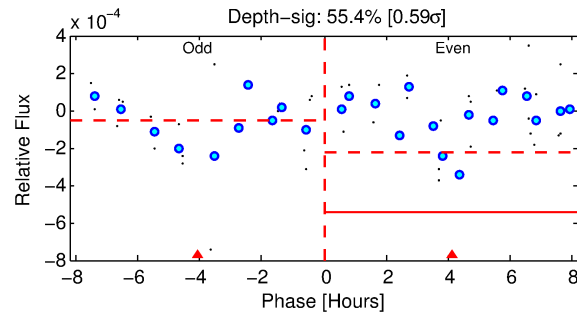
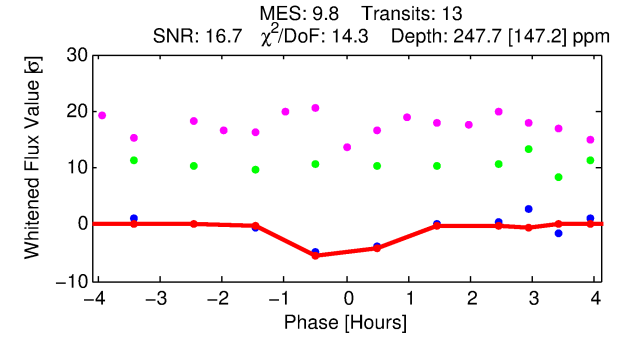
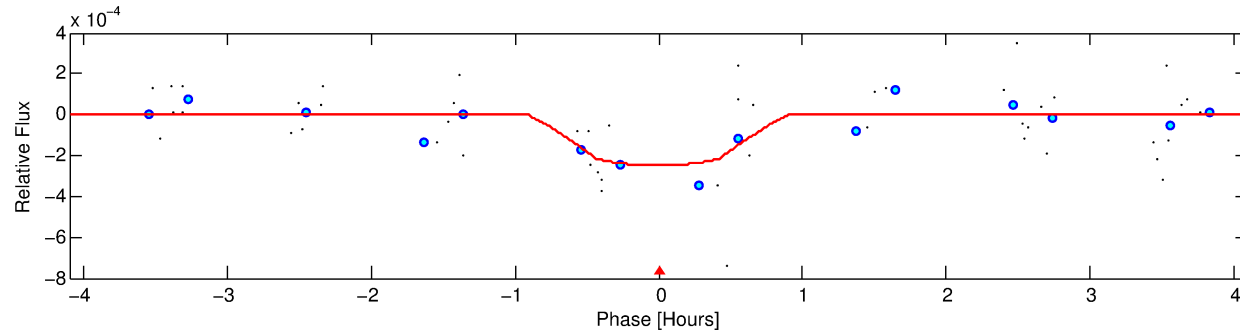
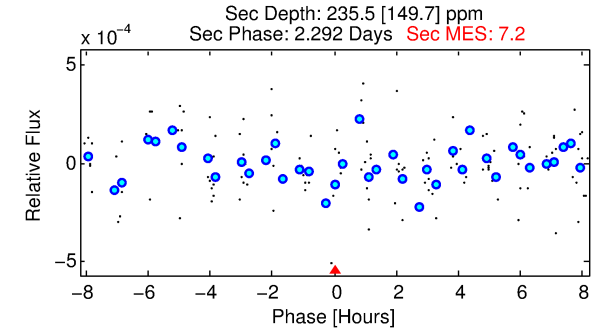
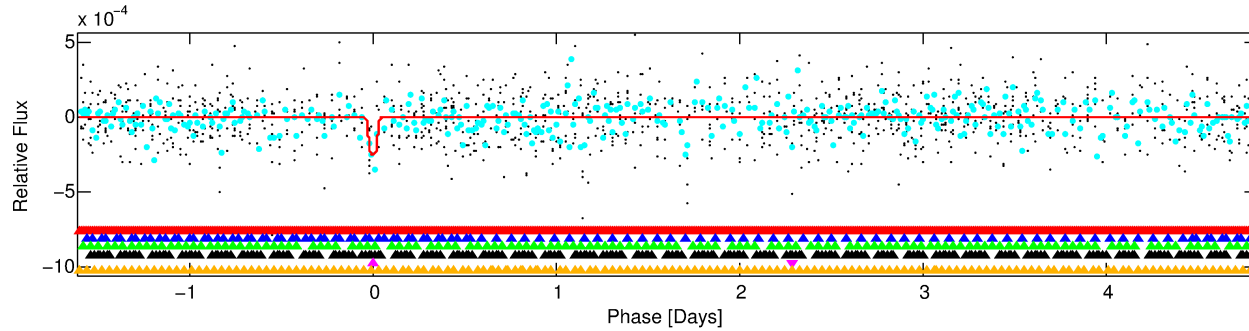
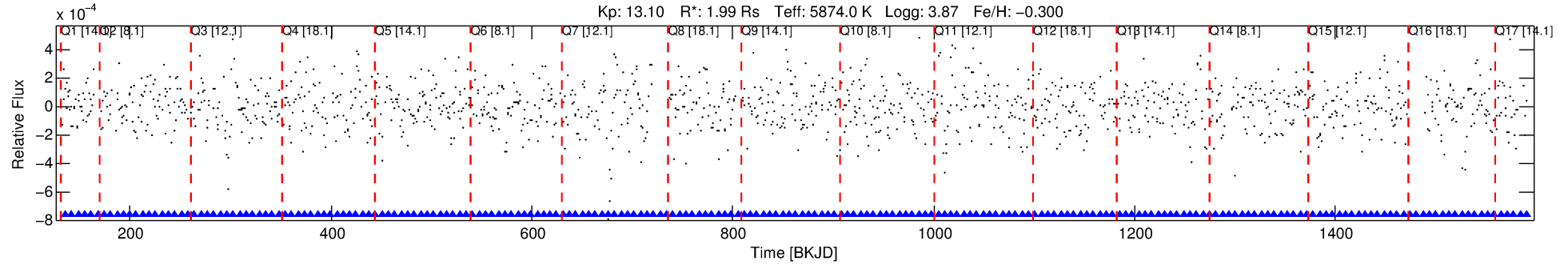
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007281979-05

No Significant Match Found

DV One-Page Summary

KIC: 7281979 Candidate: 5 of 6 Period: 6.436 d



DV Fit Results:

Period = 6.43618 [0.00009] d
Epoch = 135.5920 [0.0079] BKJD
Rp/R* = 0.0146 [0.1482]
a/R* = 34.86 [1696.46]
b = 0.30 [147.54]
Seff = 877.35 [480.07]
Teq = 1388 [190] K
Rp = 3.17 [32.21] Re
a = 0.0694 [0.0230] AU
Ag = 62.31 [1268.16] [0.05 σ]
Teffp = 6028 [30664] K [0.15 σ]

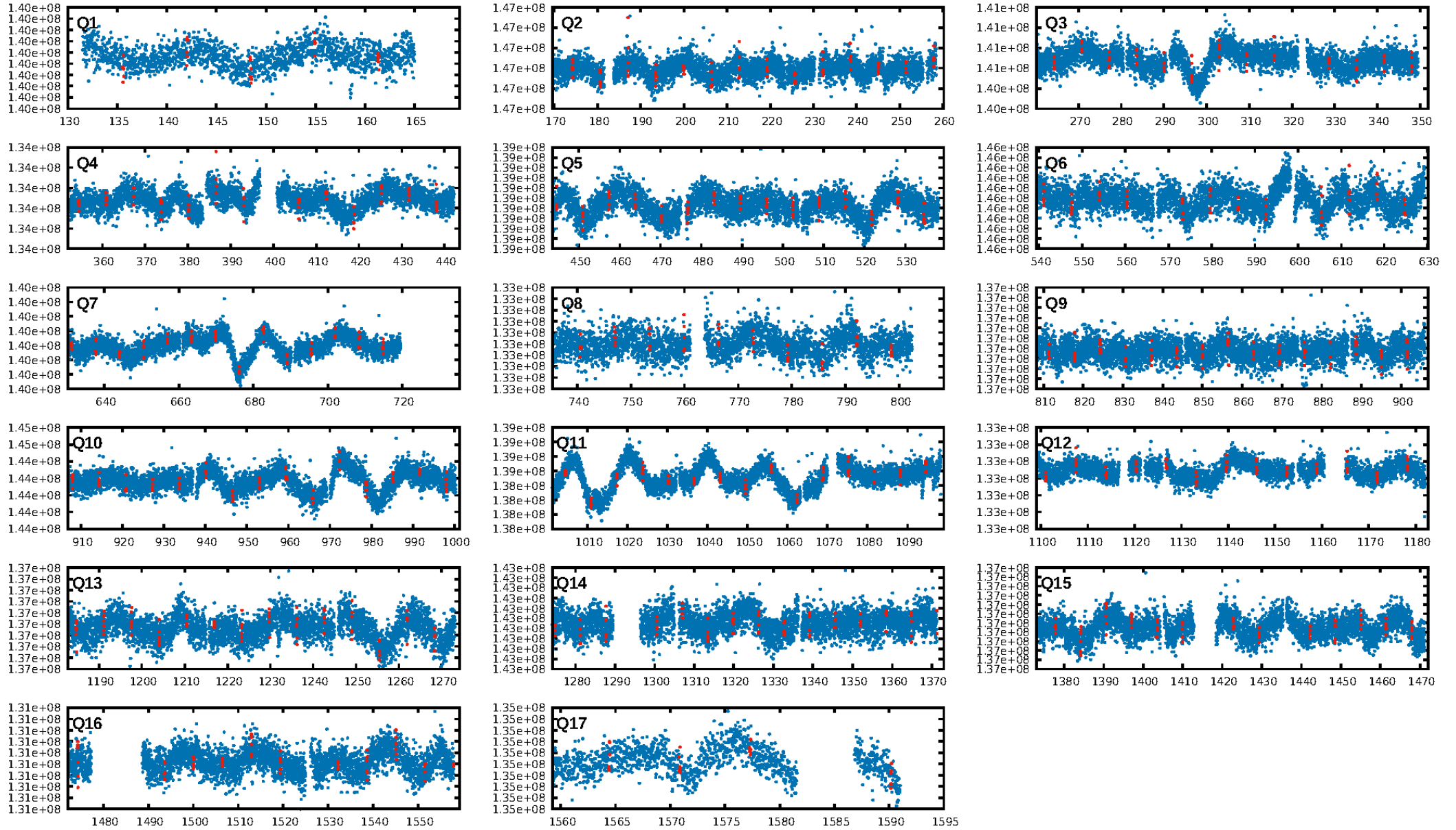
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.80 σ]
LongPeriod-sig: 100.0% [31.41 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: -8.009
Centroid-sig: 17.5%
Centroid-so: 1.184 arcsec [3.63 σ]
OotOffset-rm: 1.141 arcsec [1.20 σ]
OotOffset-st: 3/3/1/2 [9]
KicOffset-rm: 1.161 arcsec [1.24 σ]
KicOffset-st: 3/3/1/2 [9]
DiffImageQuality-fgm: 0.22 [2/9]
DiffImageOverlap-fno: 0.00 [0/17]

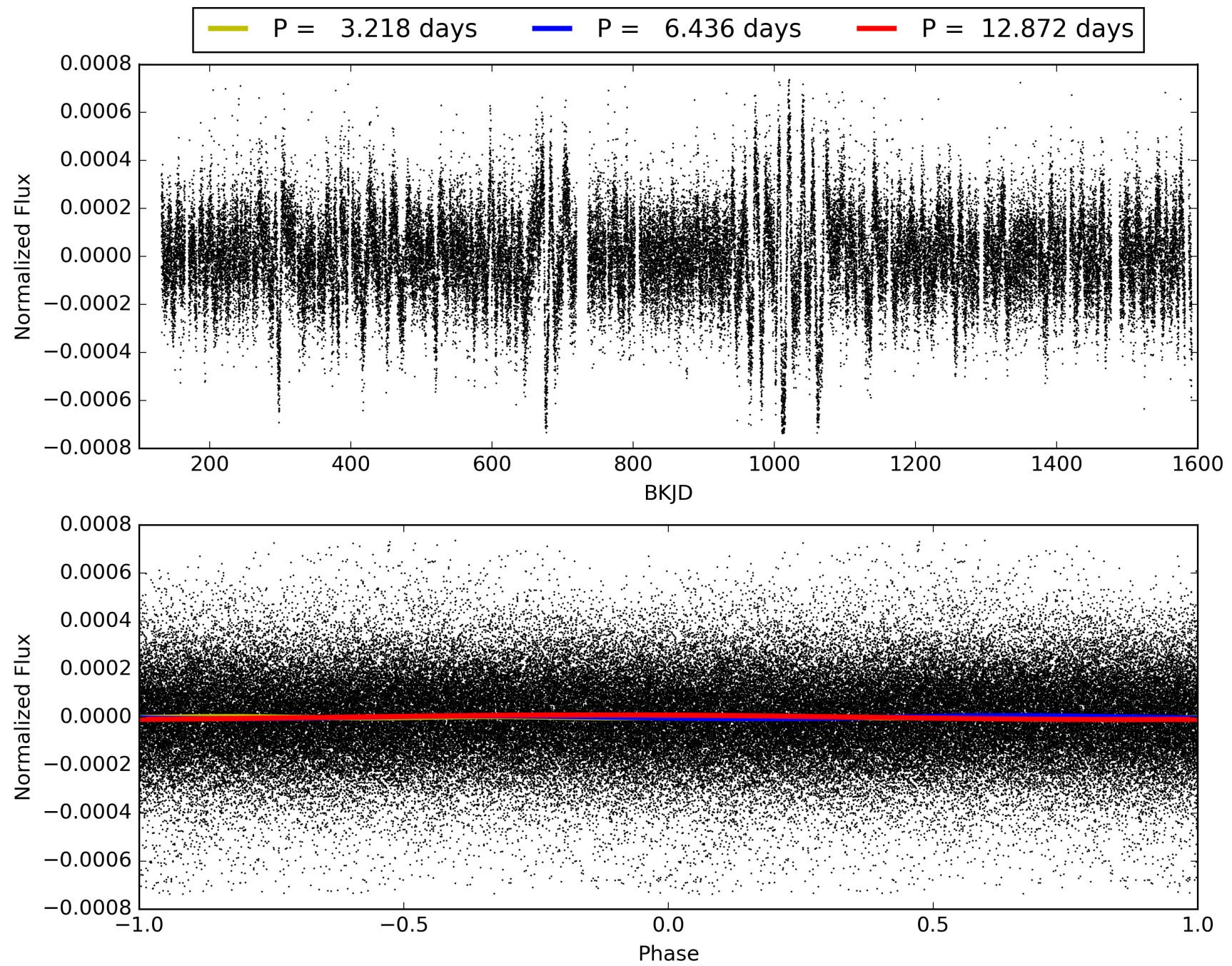
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:22:28 Z

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

TCE 007281979-05, PDC Light Curves

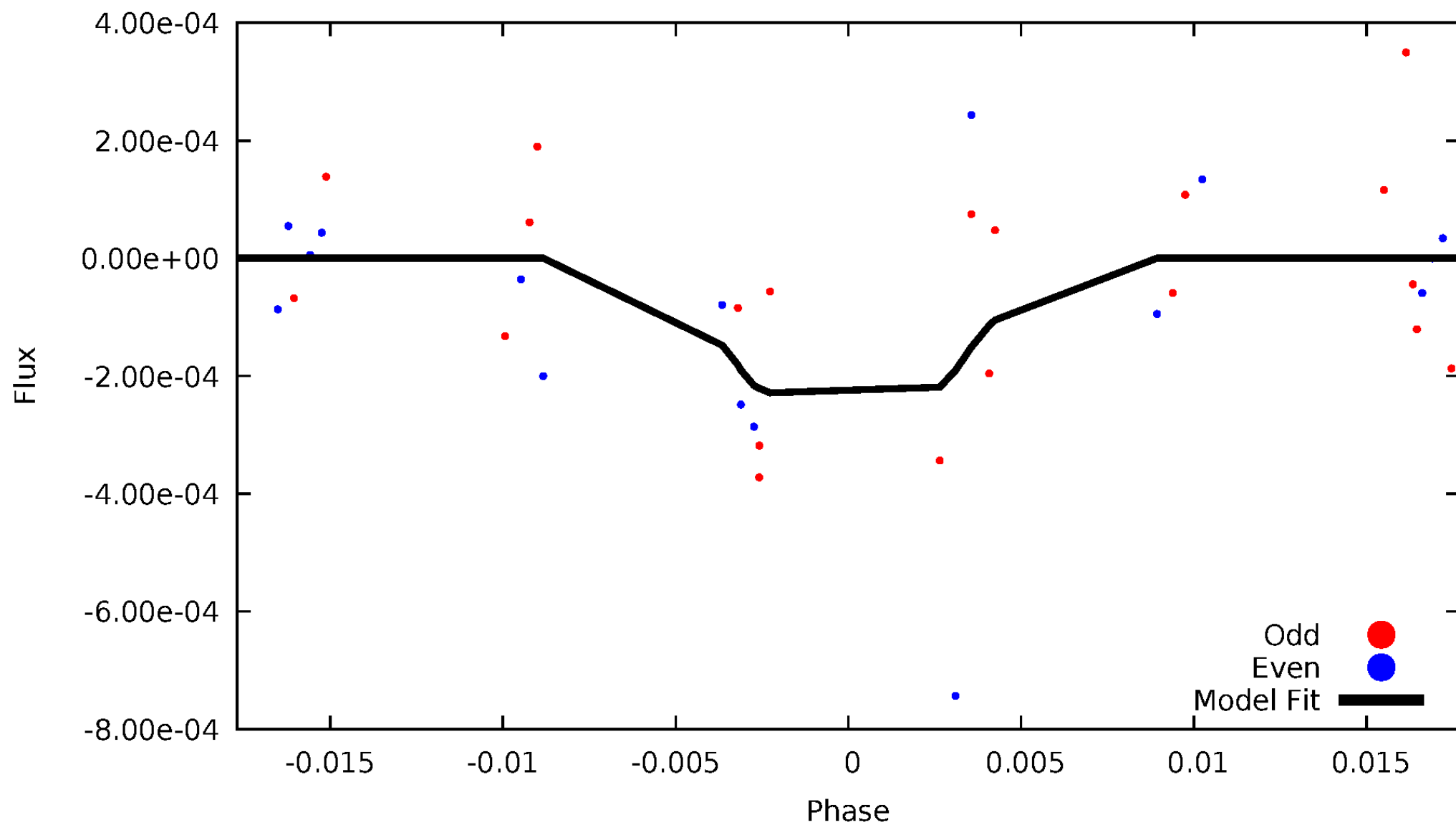


TCE 007281979-05



DV Odd/Even

TCE 007281979-05

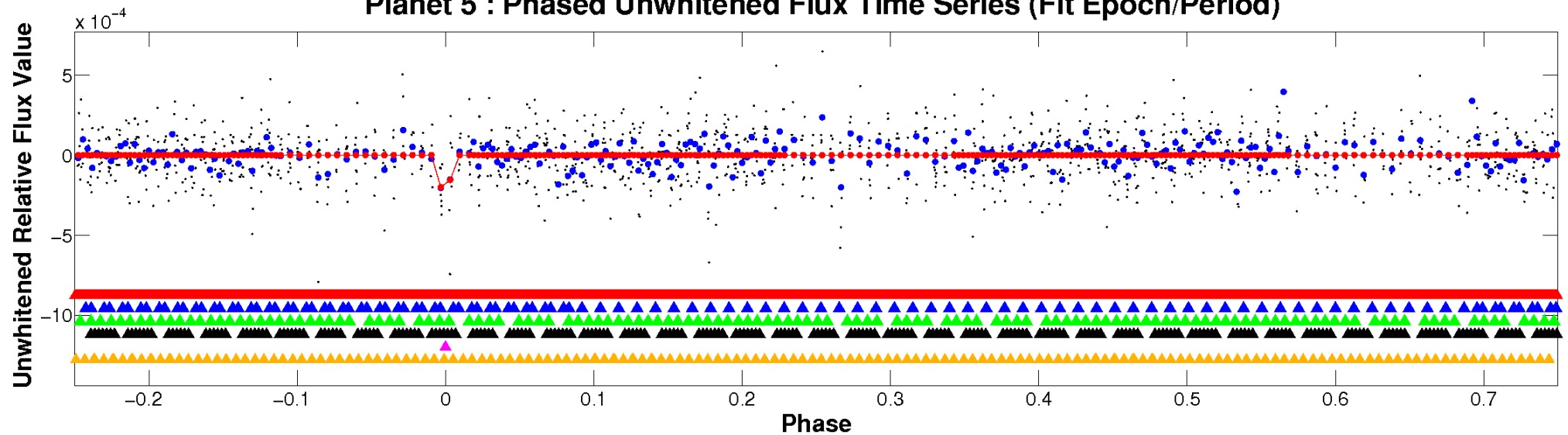


ALT Odd/Even

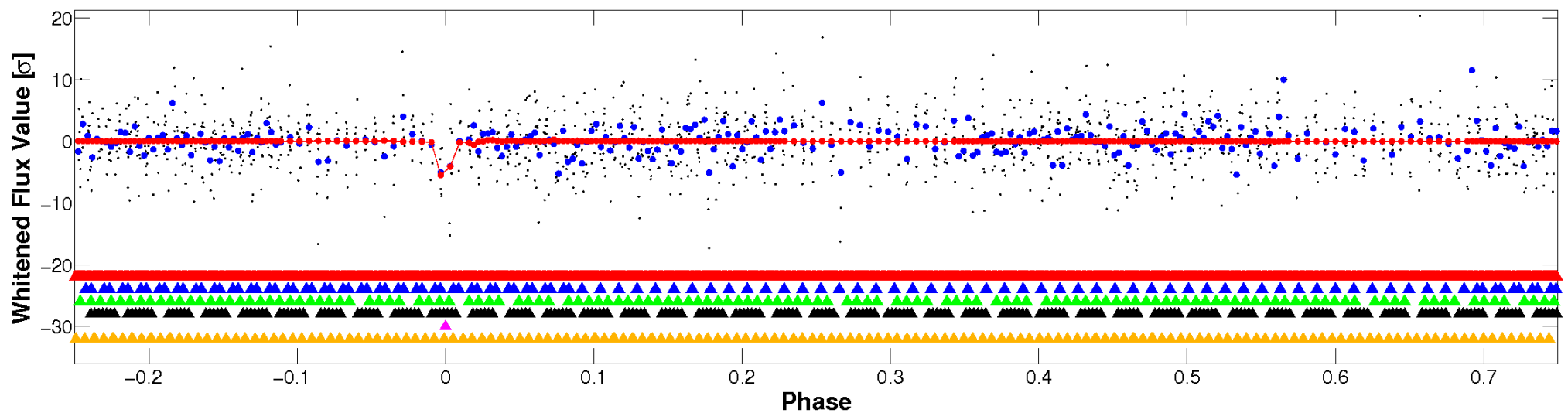
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

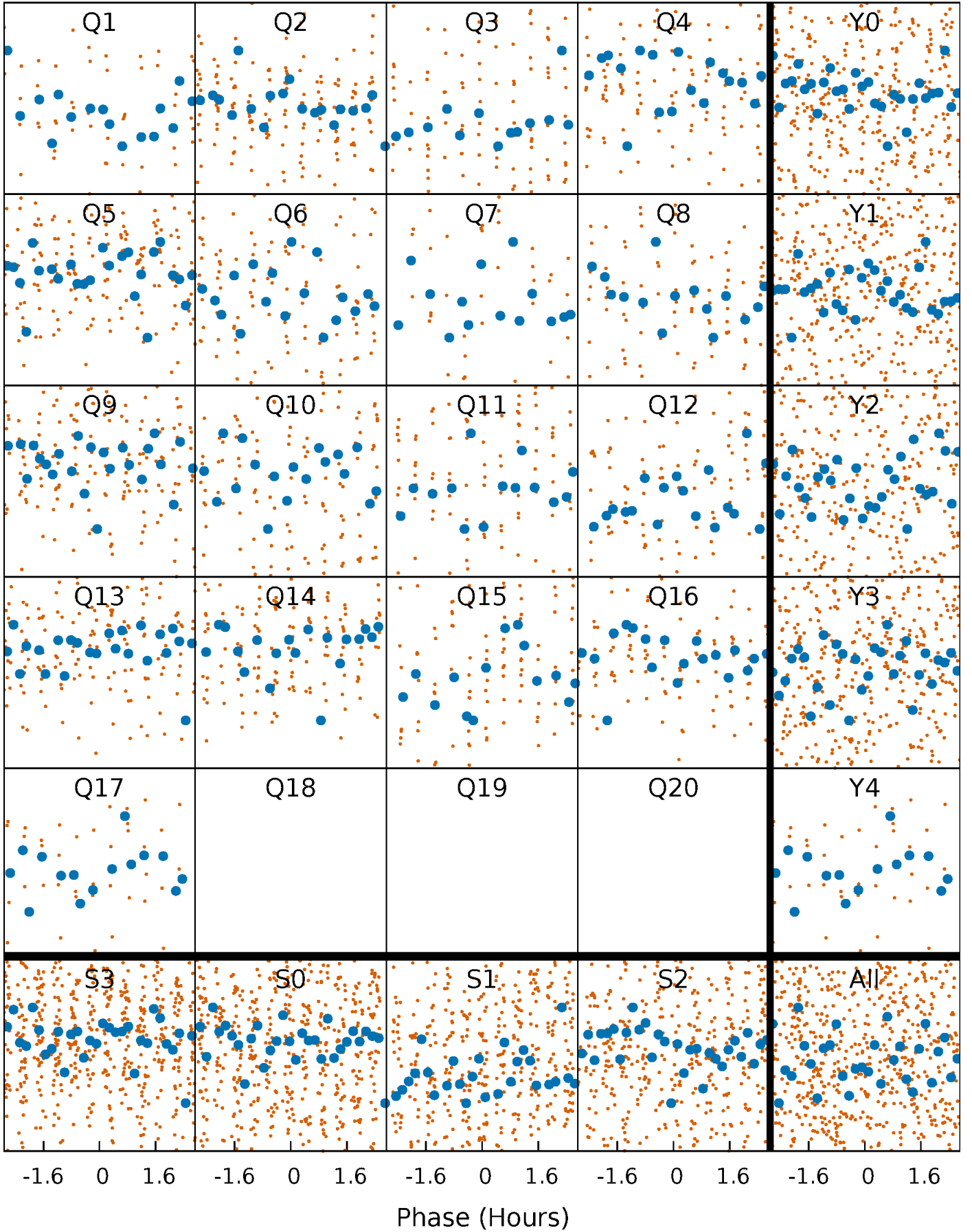


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



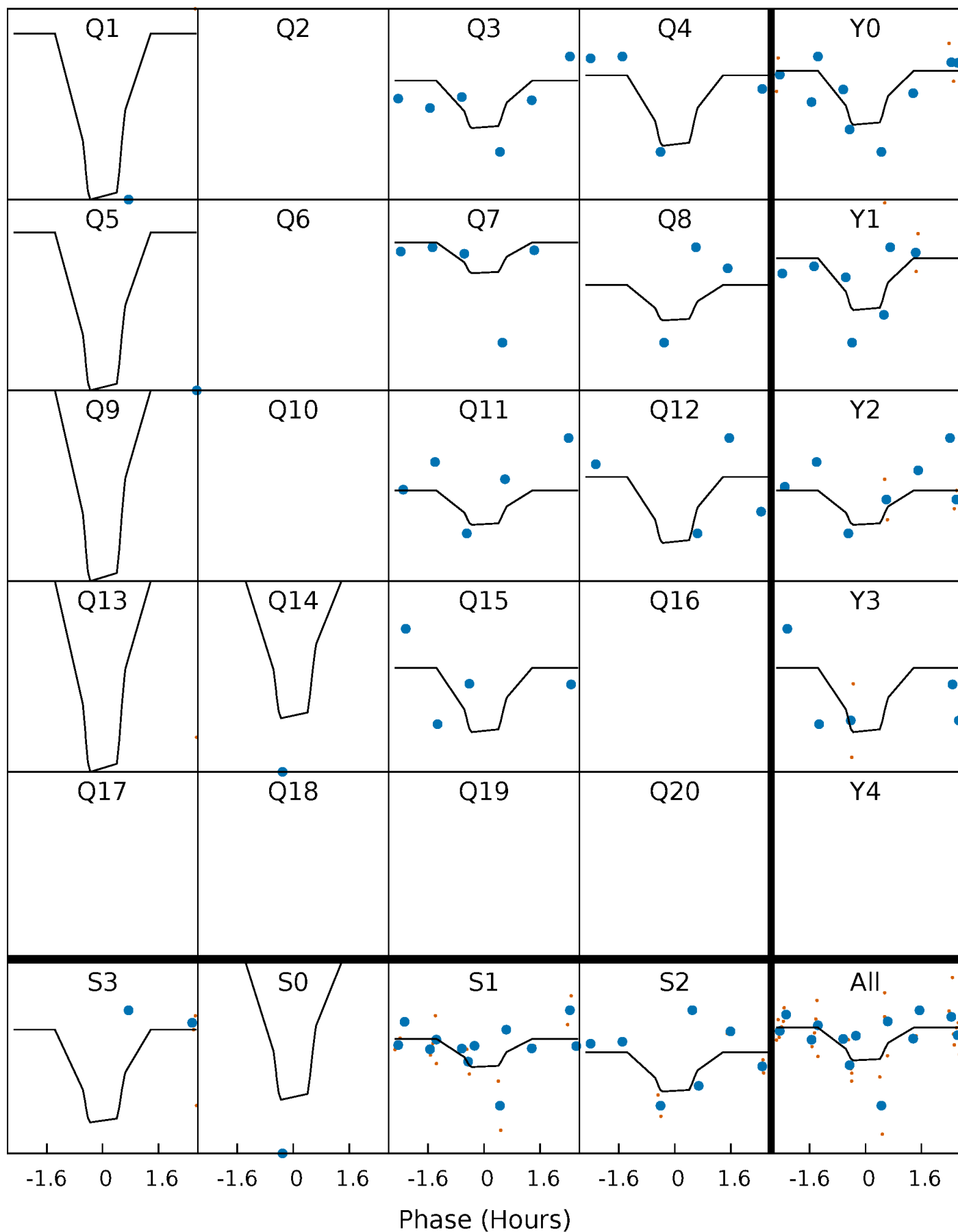
PDC Quarter-Phased Transit Curves

TCE 007281979-05 $P = 6.436181$ Days $T_0 = 135.591973$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281979-05 P= 6.436181 Days $T_0=135.591973$ (BKJD)

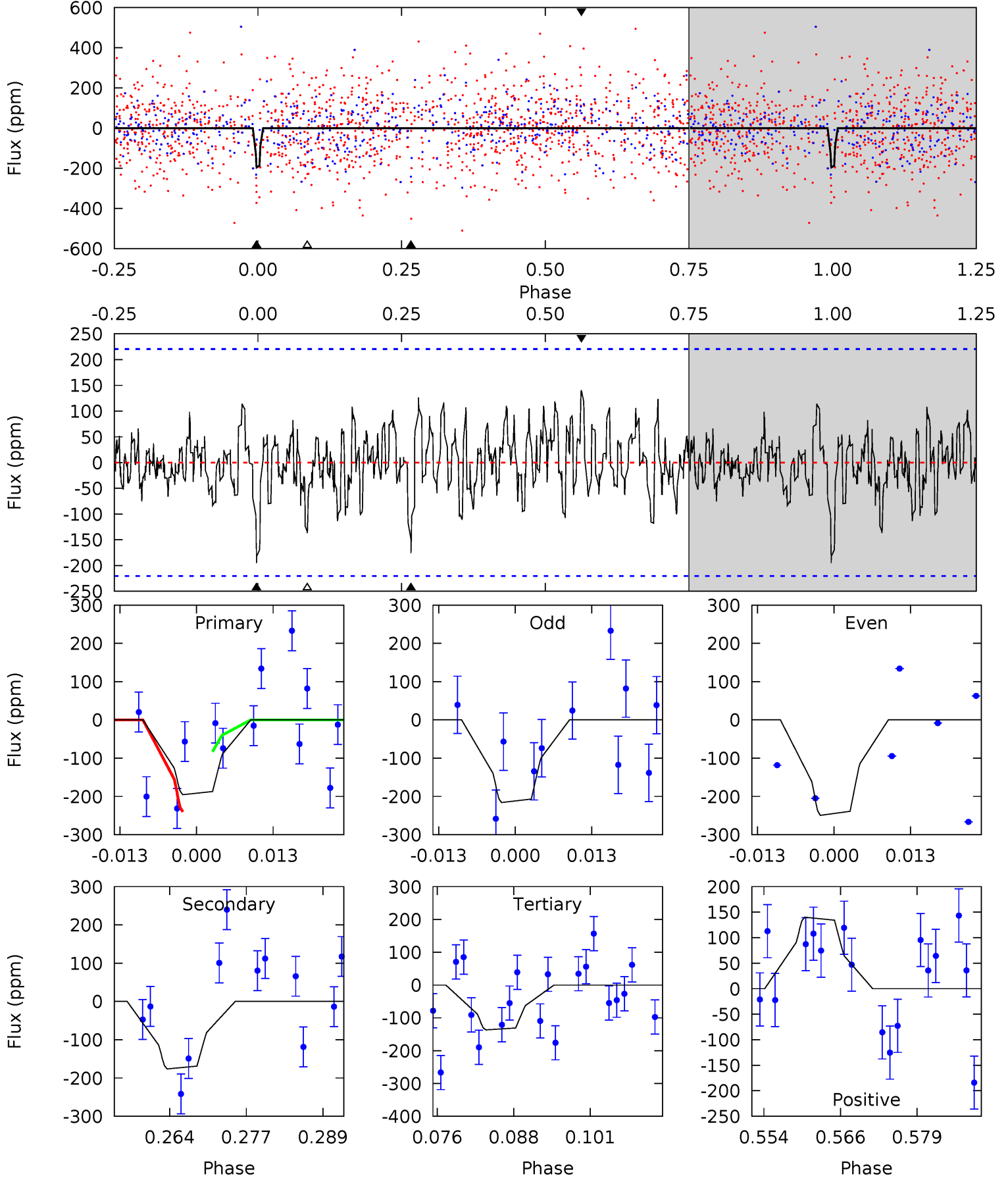


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281979-05, P = 6.436181 Days, E = 129.155792 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.42	3.99	3.09	3.17	4.98	2.50	1.08	1.33	1.25	0.89	0.82	0.29	0	0.42	1.78



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281979

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5874^{+176}_{-132}	$3.872^{+0.315}_{-0.105}$	$-0.300^{+0.350}_{-0.250}$	$1.991^{+0.364}_{-0.676}$	$1.076^{+0.175}_{-0.175}$	$0.192^{+0.386}_{-0.073}$
	+3%/-2%	+8%/-3%	+117%/-83%	+18%/-34%	+16%/-16%	+201%/-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 007281979-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-176 ± 44	$21.57^{+24.32}_{-14.90}$	1910^{+120}_{-162}	2660^{+1356}_{-4748}	$0.993^{+9.711}_{-0.767}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

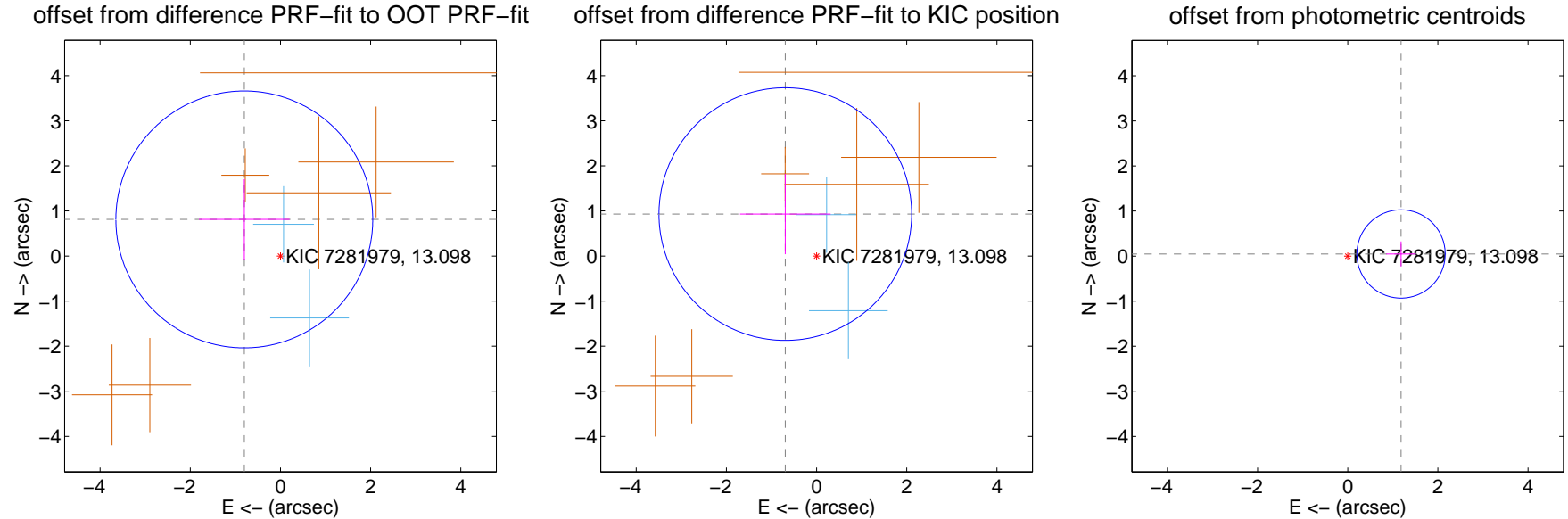
DV Centroid Data

Supplemental centroid analysis for 007281979-05. Kepler magnitude: 13.10. Transit SNR 16.71

There are 2 quarters with good PRF difference image offsets

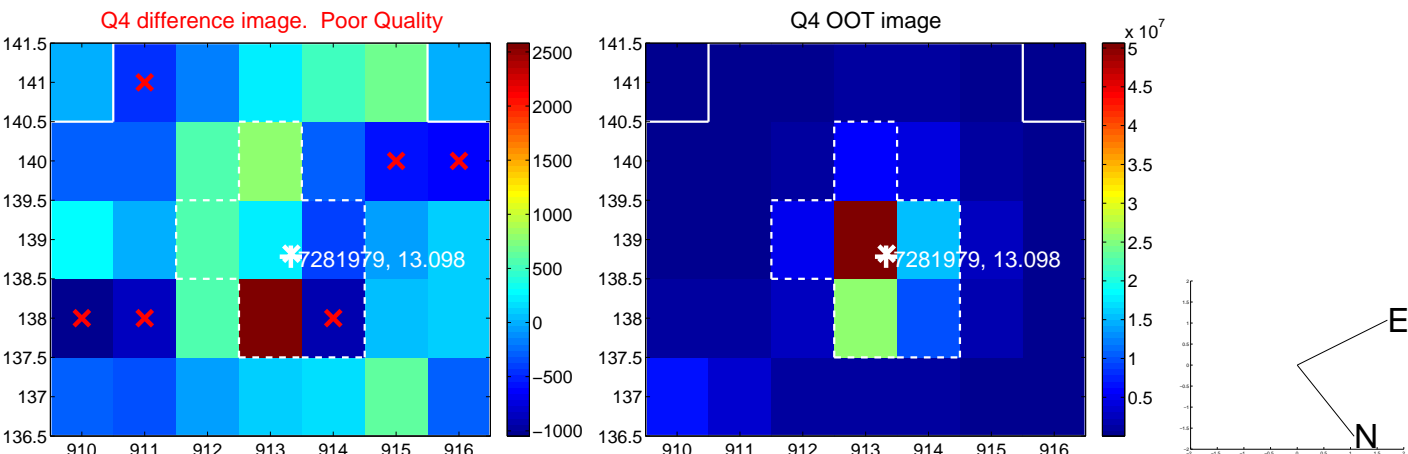
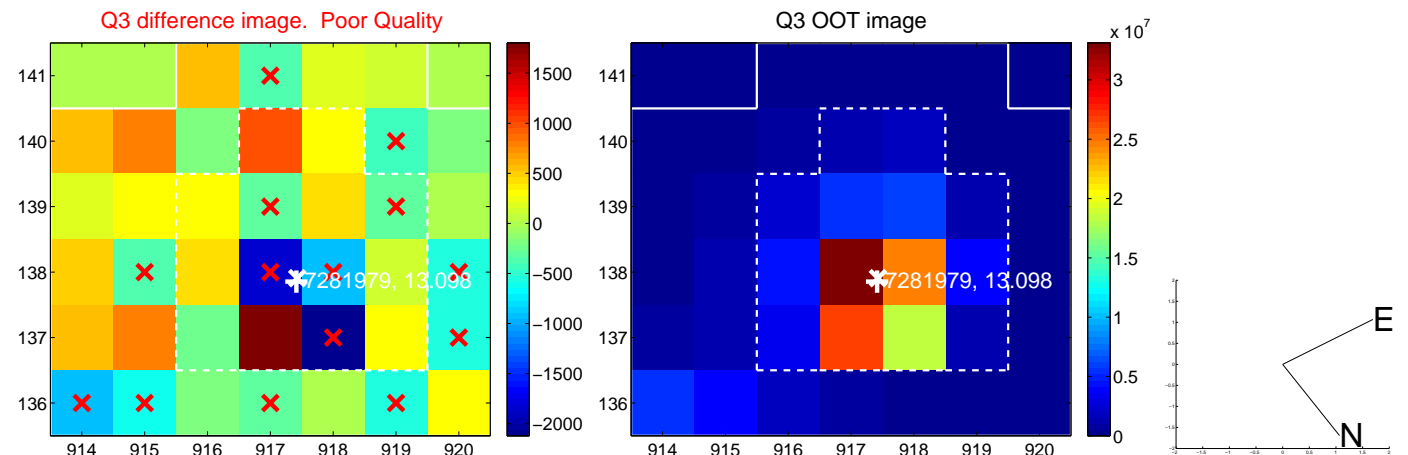
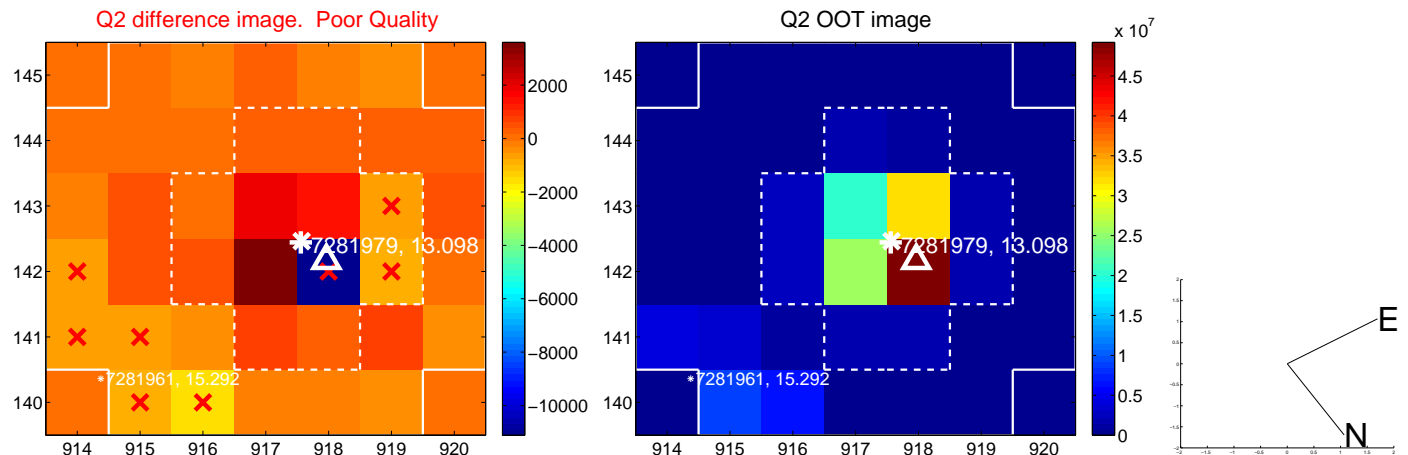
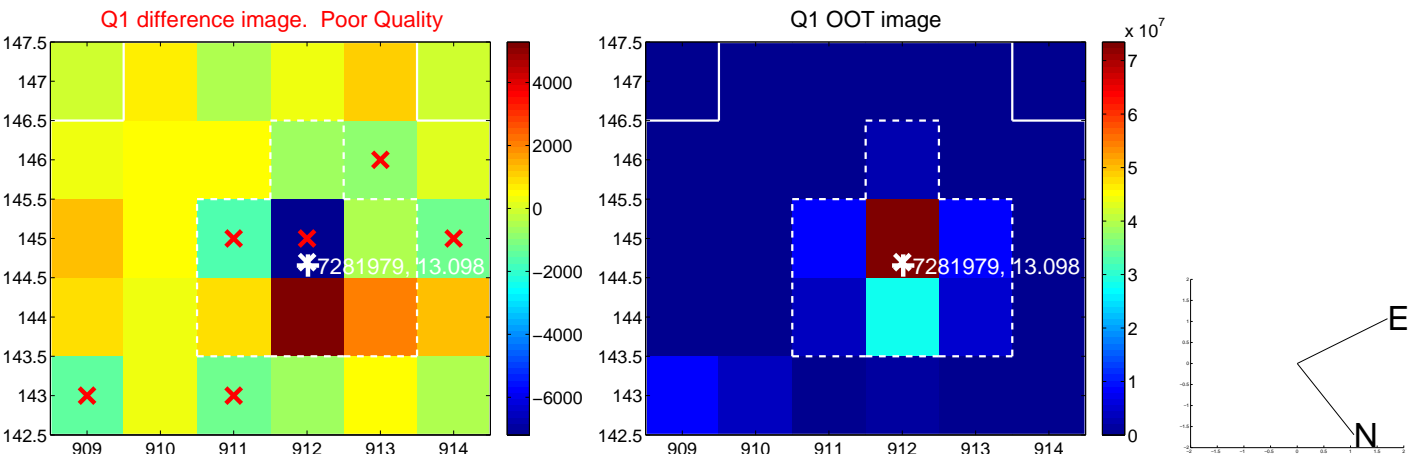
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.141 ± 0.950	1.20	0.802 ± 1.005	0.812 ± 0.892
PRF-fit source offset from KIC position	1.161 ± 0.934	1.24	0.694 ± 1.005	0.931 ± 0.892
photometric centroid source offset	1.18 ± 0.33	3.63	-1.18 ± 0.33	0.05 ± 0.28

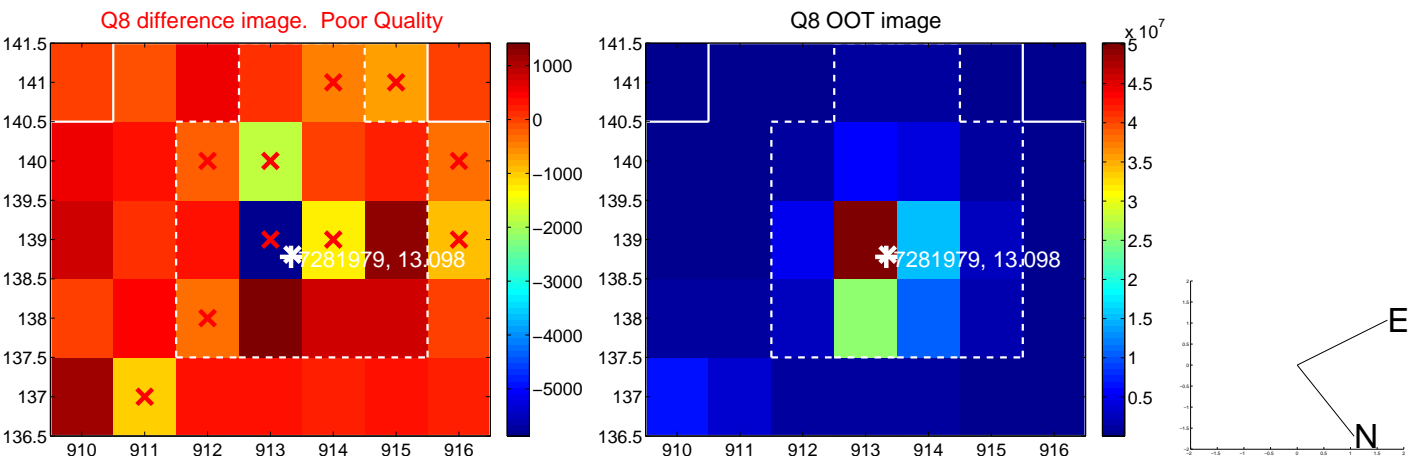
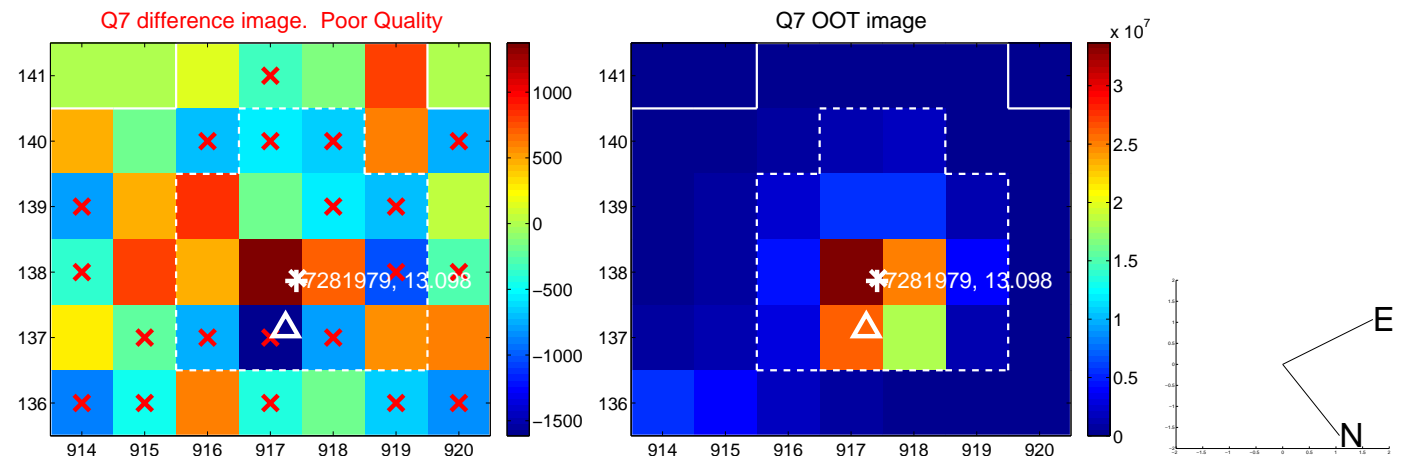
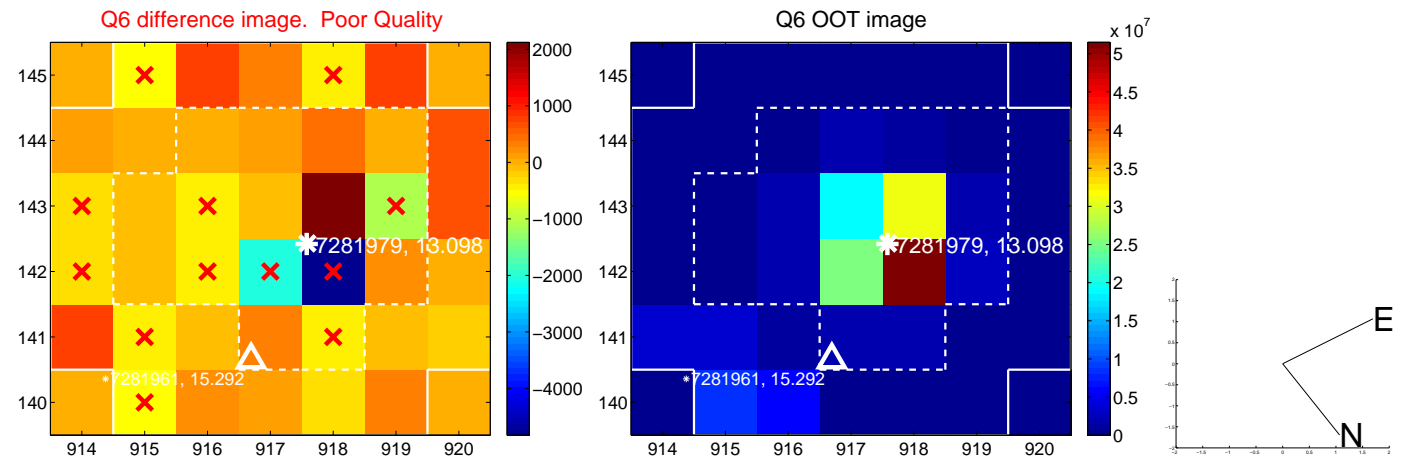
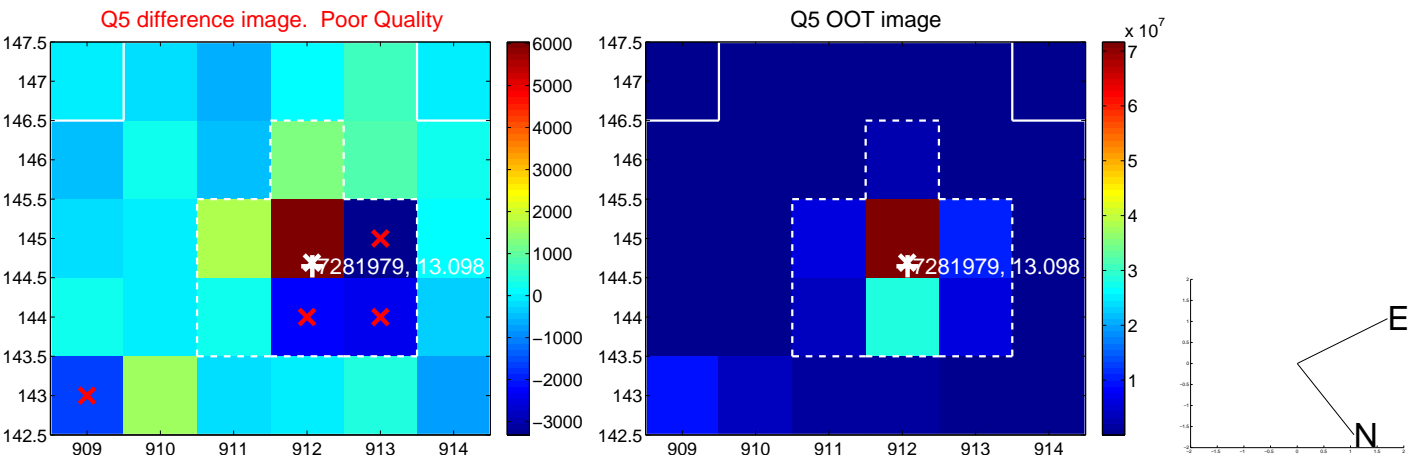


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

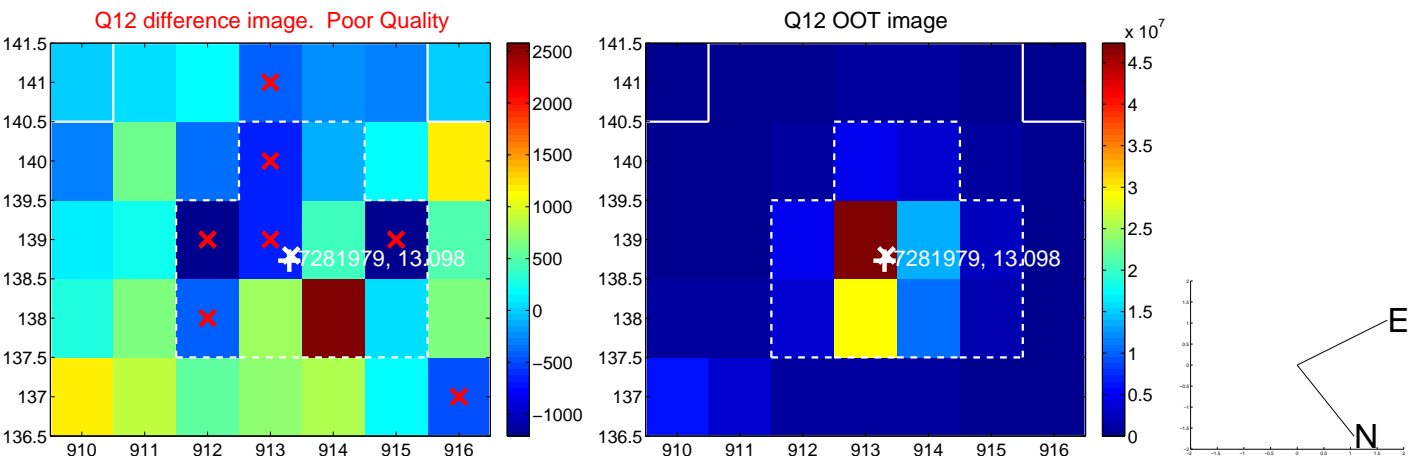
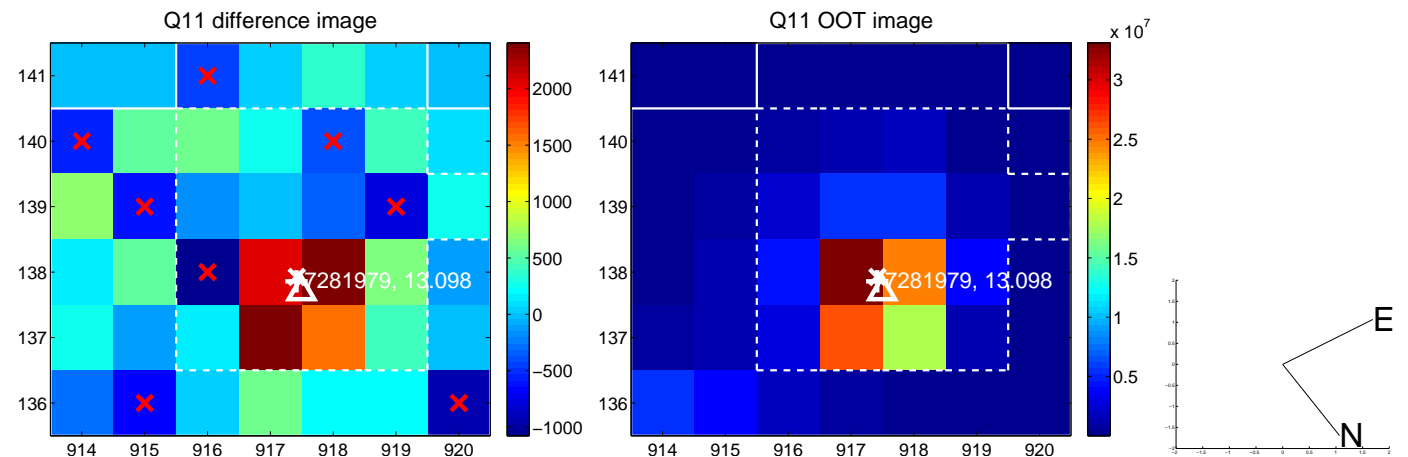
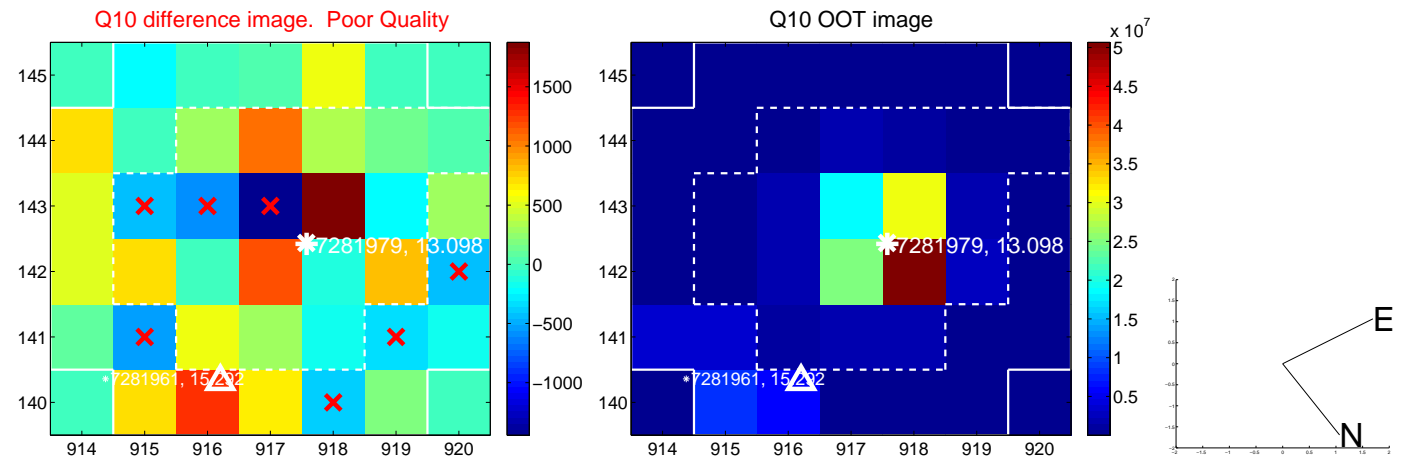
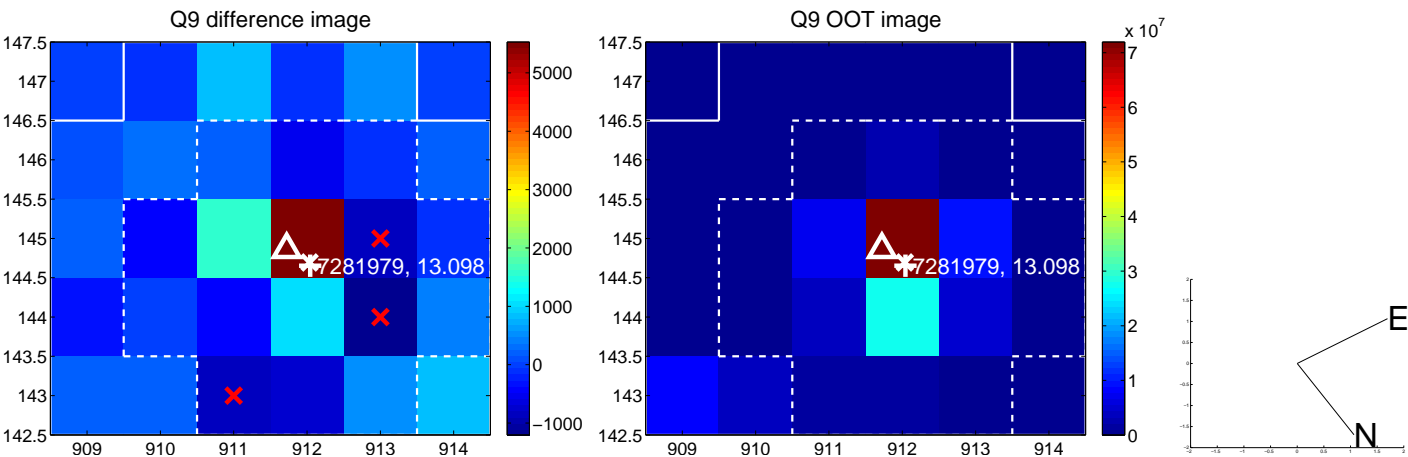
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



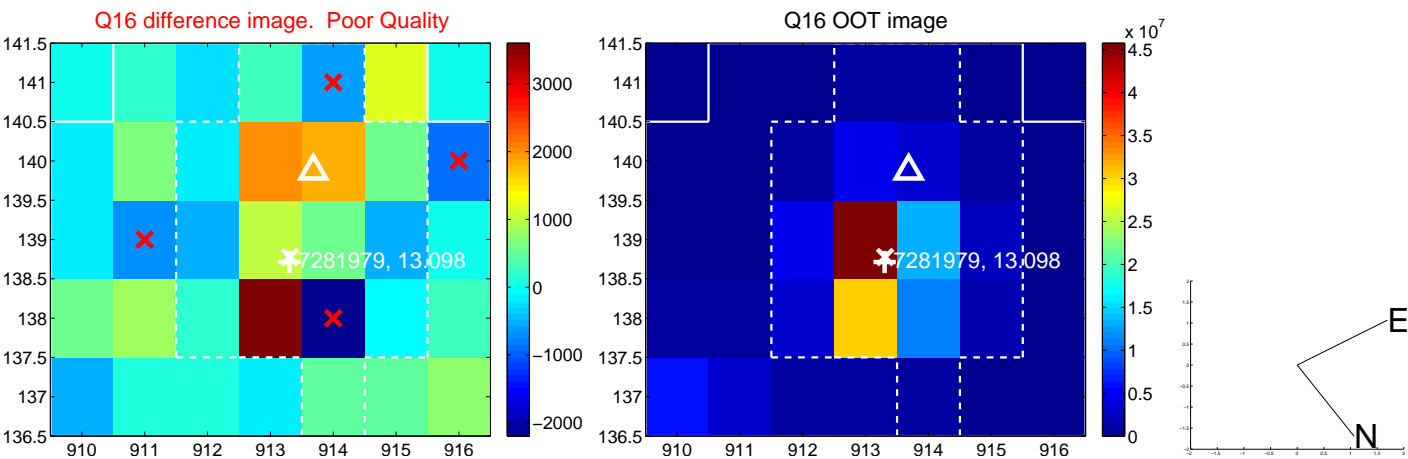
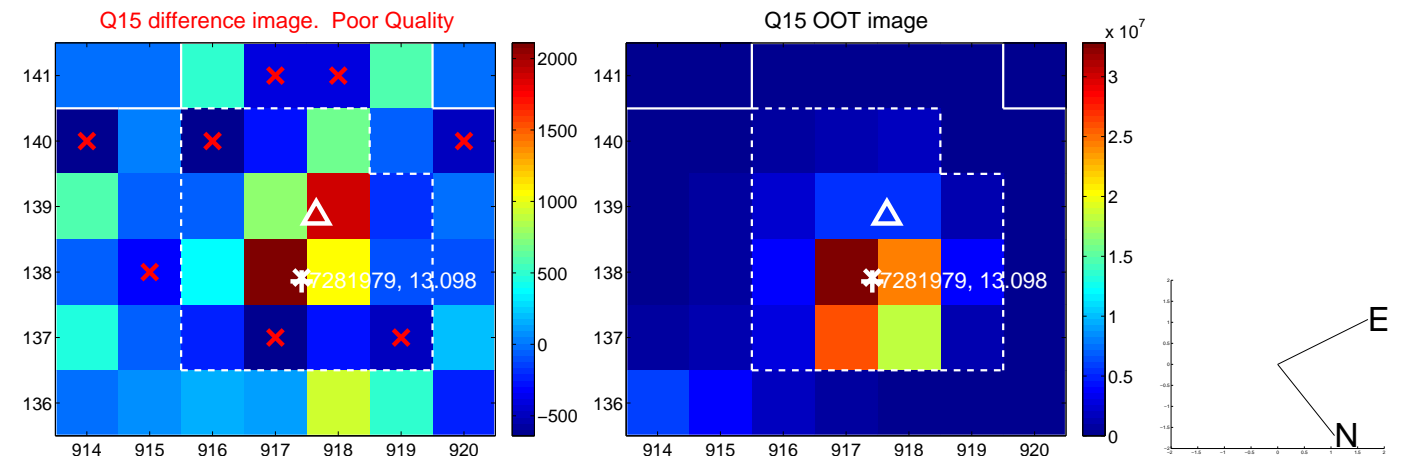
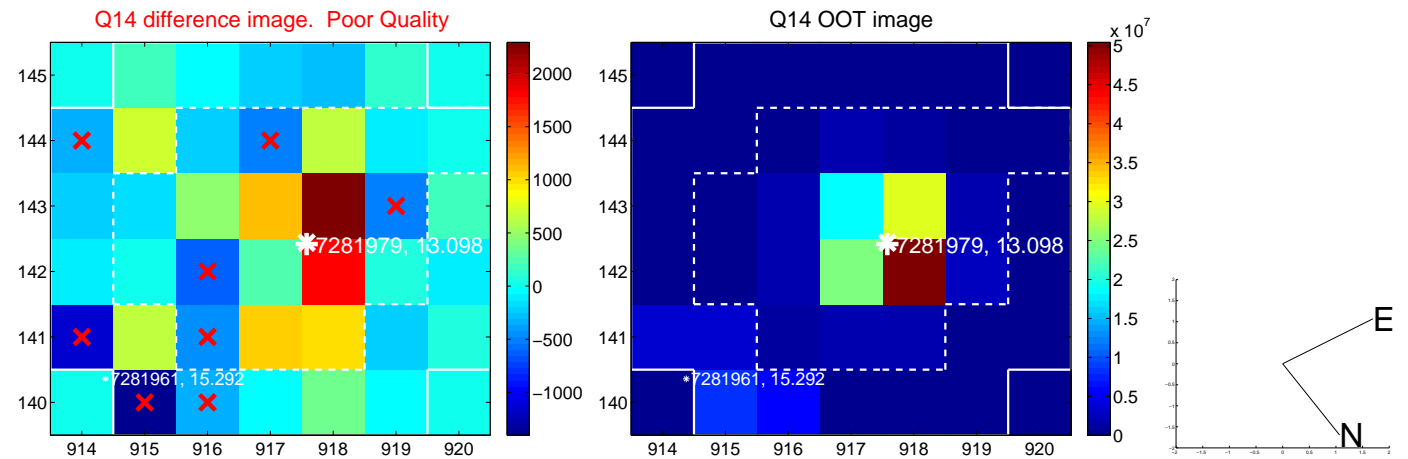
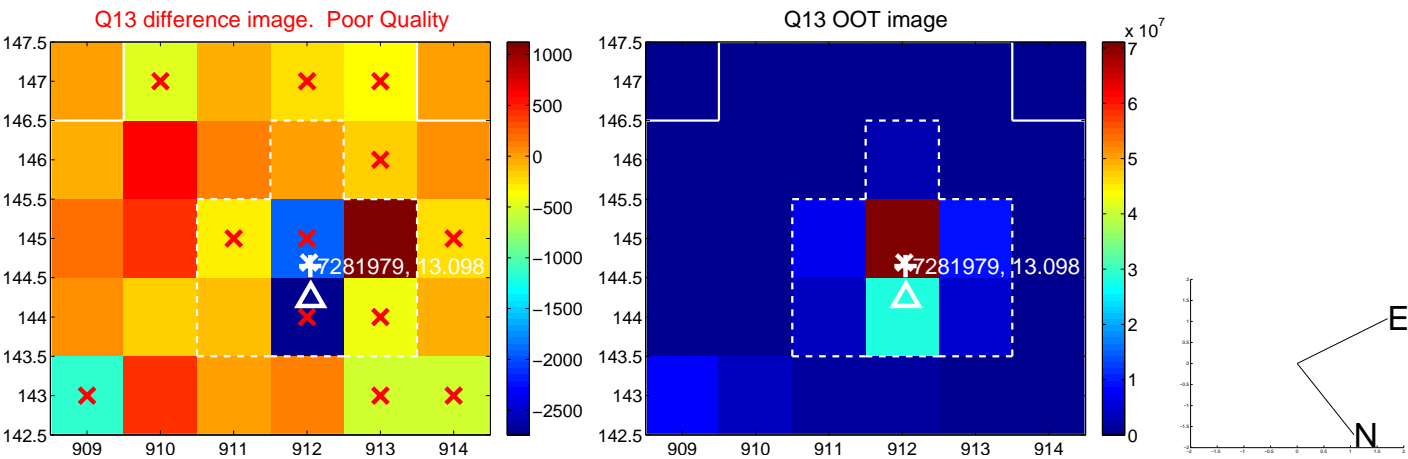
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



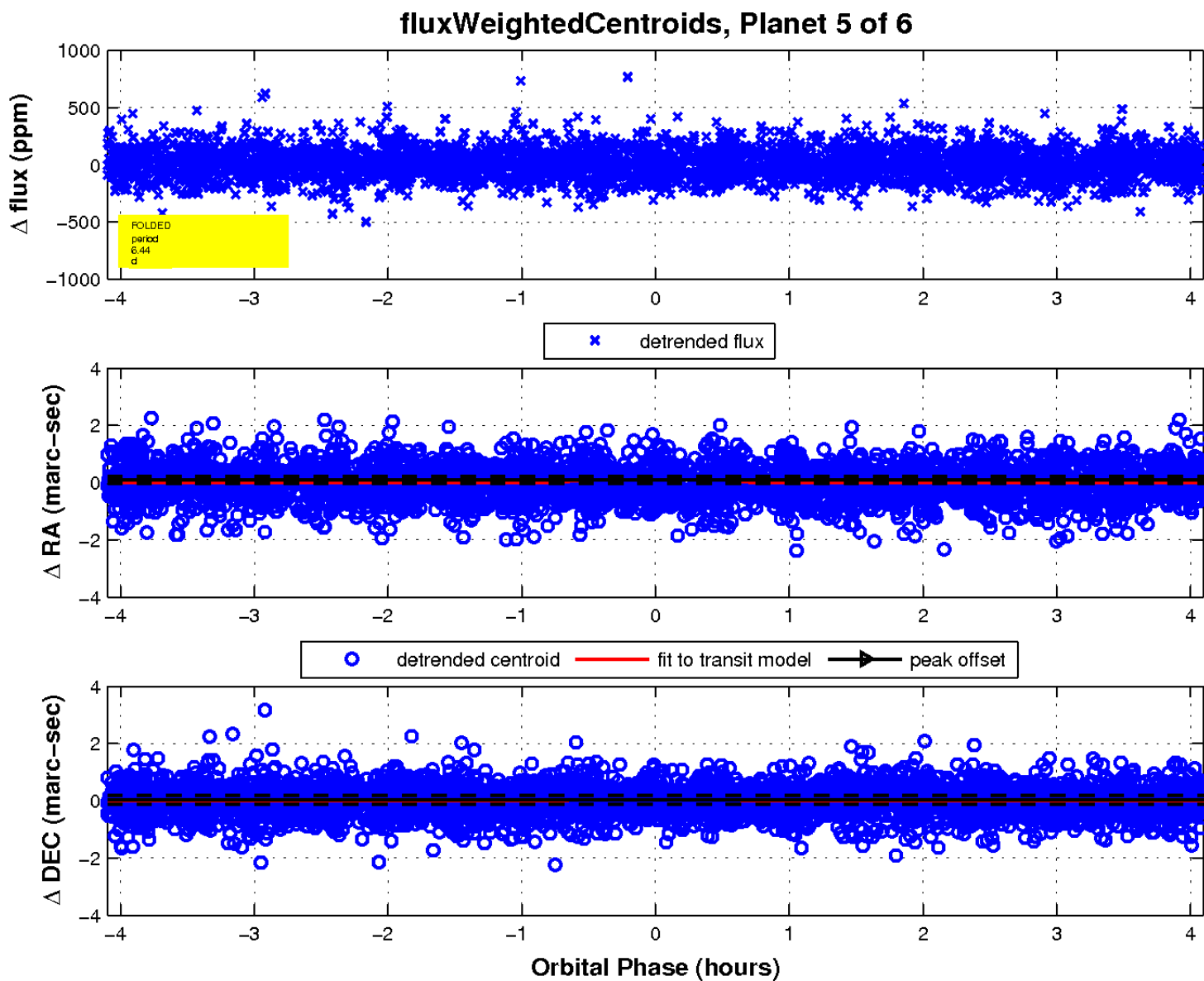
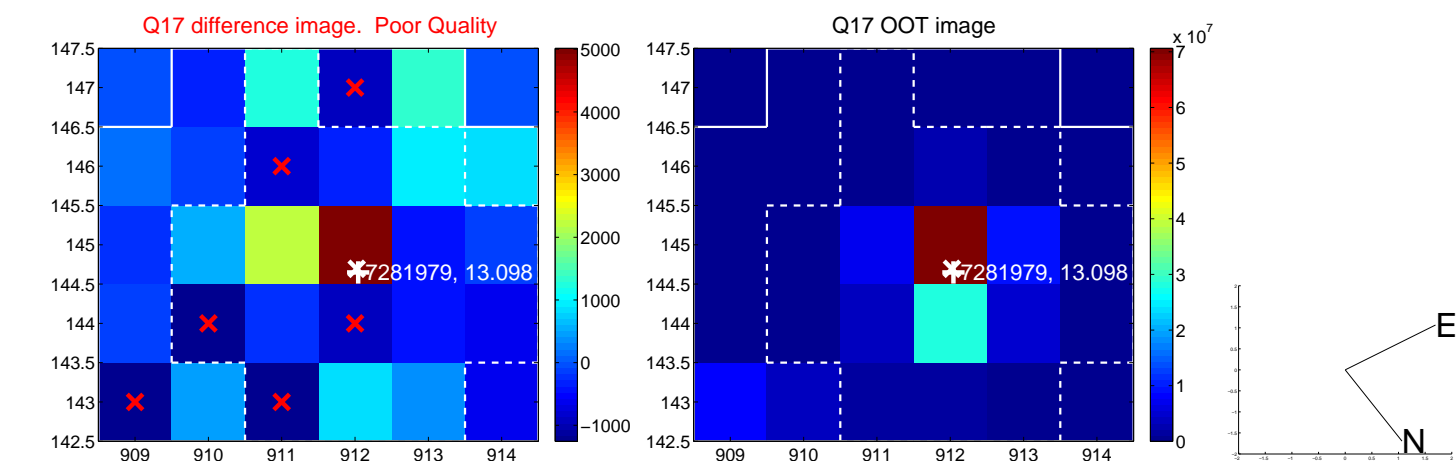
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

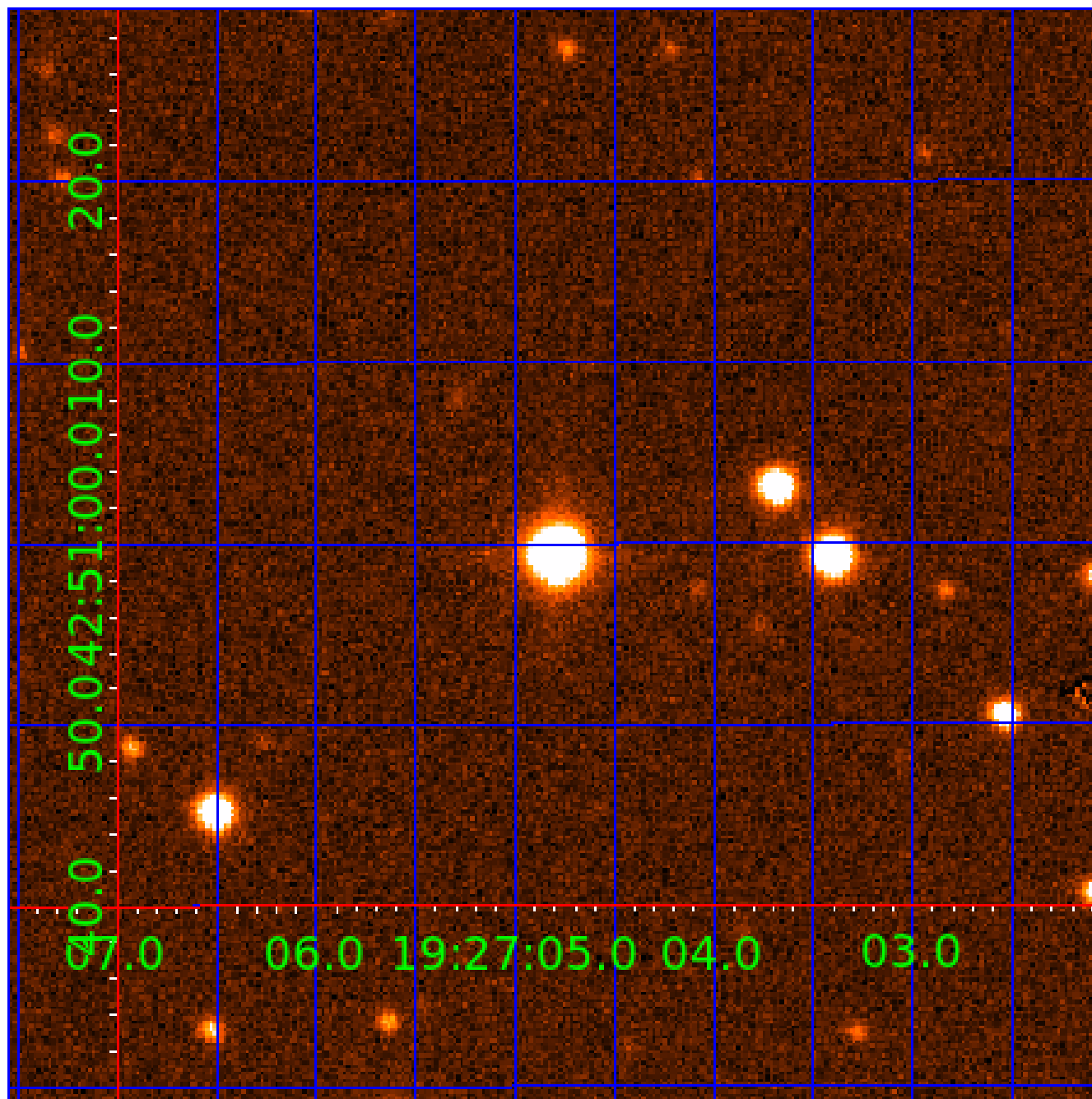


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007281979

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})
007281979-01	OBS	No	0.566775	131.860975	15.1	4.261	10.9	12.4	1.99	5874	0.77	22393.92
007281979-02	OBS	No	12.952108	133.632474	165.8	1.263	9.1	11.8	1.99	5874	2.57	345.32
007281979-03	OBS	No	10.798999	140.443167	137.8	2.268	8.0	14.6	1.99	5874	2.76	440.05
007281979-04	OBS	No	5.776498	132.395369	652.8	1.500	14.1	-1.0	1.99	5874	5.09	1013.42
007281979-05	OBS	No	6.436181	135.591973	247.7	1.366	9.8	16.7	1.99	5874	3.17	877.35
007281979-06	OBS	No	8.608937	134.065177	282.3	0.944	11.4	17.4	1.99	5874	3.72	595.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007281979-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_FEW_DIFFS—EPHEM_MATCH
007281979-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS
007281979-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007281979-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS
007281979-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007281979-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

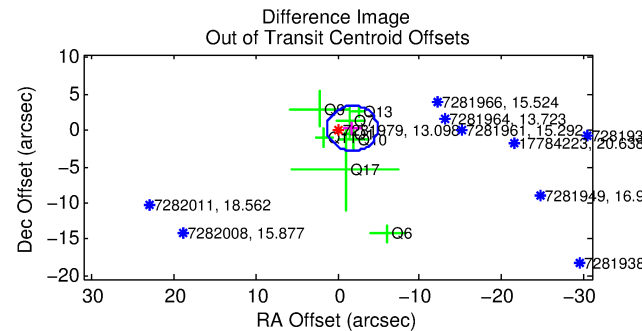
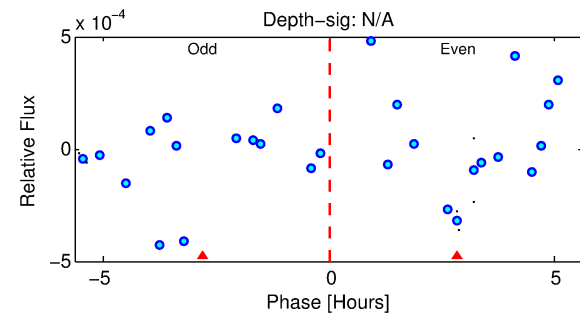
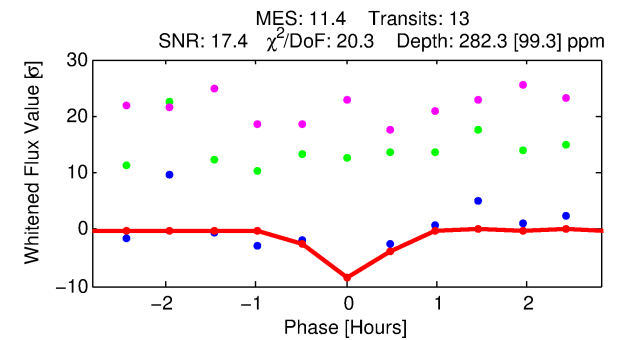
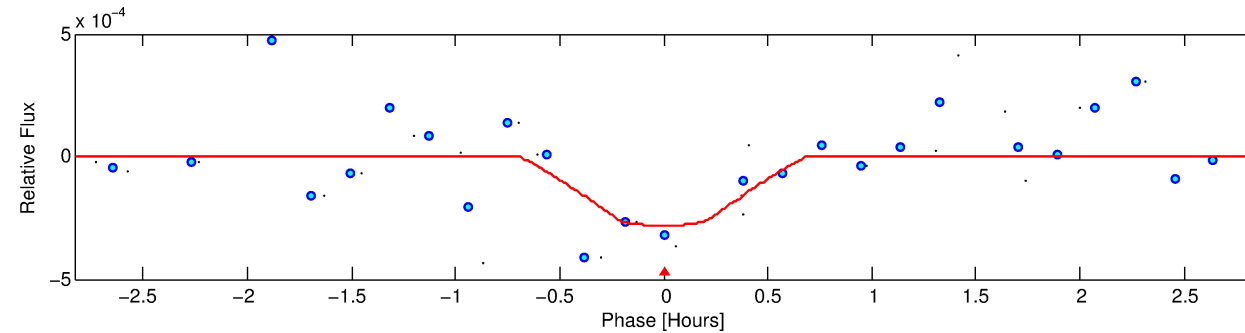
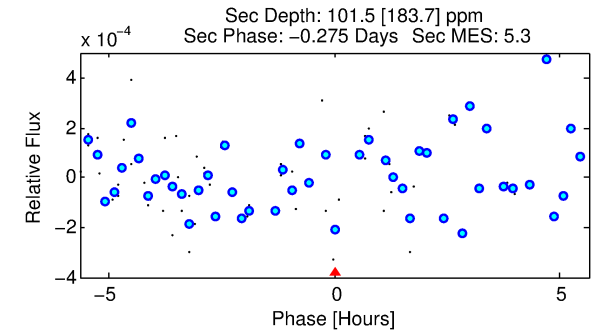
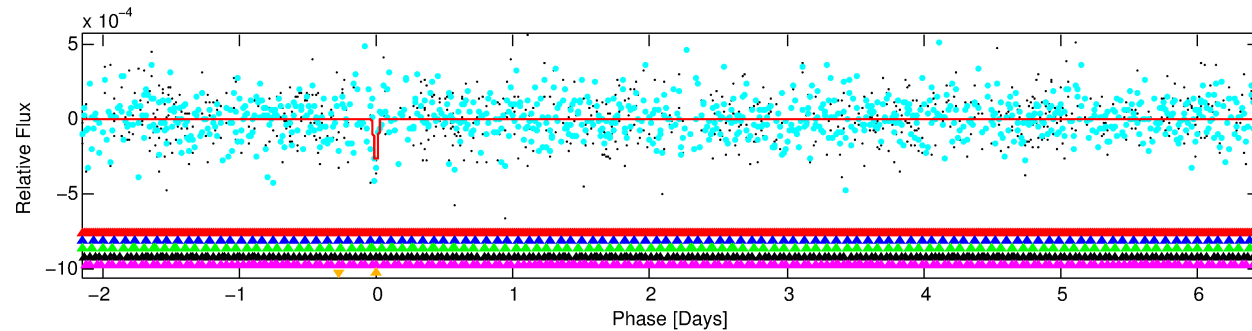
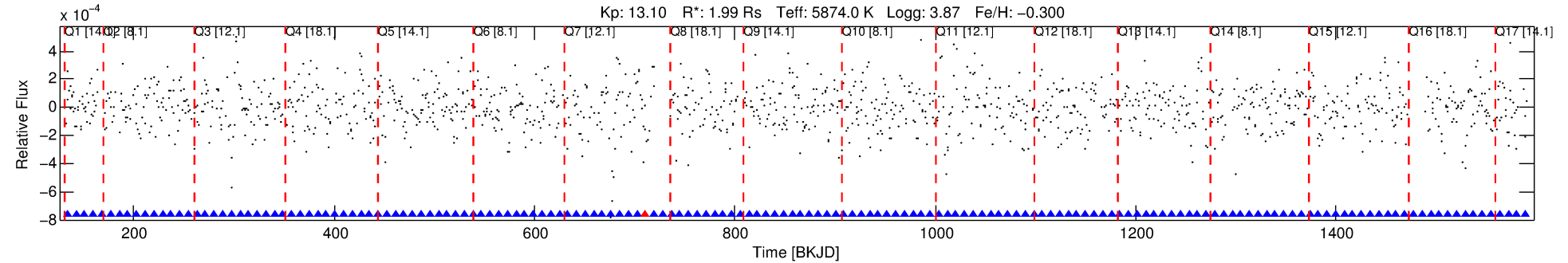
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007281979-06

No Significant Match Found

DV One-Page Summary

KIC: 7281979 Candidate: 6 of 6 Period: 8.609 d



DV Fit Results:

Period = 8.60894 [0.00009] d
Epoch = 134.0652 [0.0108] BKJD
Rp/R* = 0.0171 [0.0486]
a/R* = 45.11 [660.46]
b = 0.78 [7.08]
Seff = 595.31 [325.75]
Teq = 1260 [172] K
Rp = 3.72 [10.63] Re
a = 0.0843 [0.0279] AU
Ag = 28.68 [171.58] [0.16] σ
Teffp = 4507 [6714] K [0.48] σ

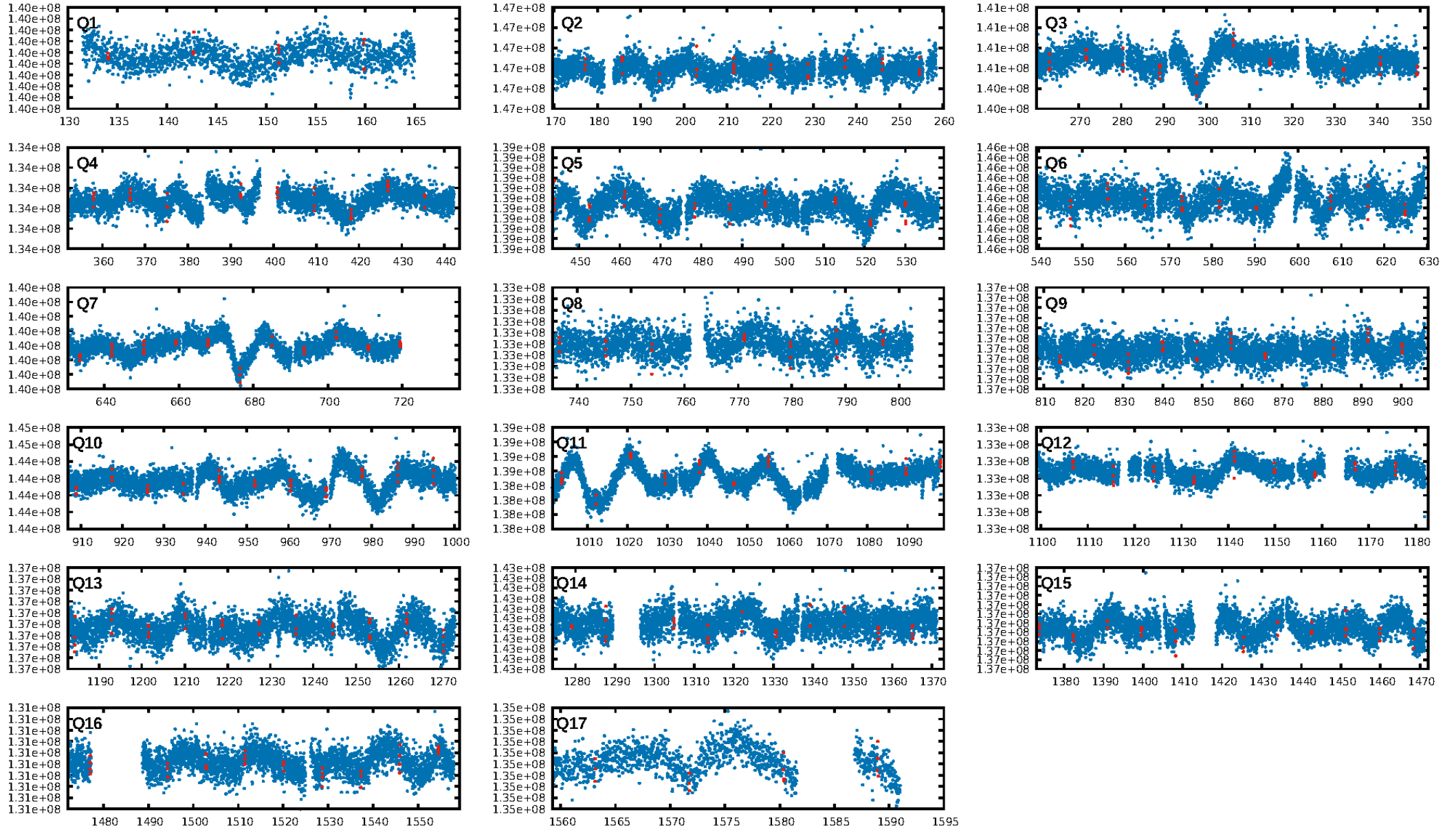
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [31.41] σ
LongPeriod-sig: 100.0% [21.40] σ
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.91 [10/11]
GhostDiagnostic-chr: -1.4
Centroid-sig: 1.5%
Centroid-so: 0.617 arcsec [1.72] σ
OotOffset-rm: 1.783 arcsec [1.72] σ
OotOffset-st: 2/2/0/4 [8]
KicOffset-rm: 1.864 arcsec [1.81] σ
KicOffset-st: 2/2/0/4 [8]
DiffImageQuality-fgm: 0.25 [2/8]
DiffImageOverlap-fno: 0.00 [0/17]

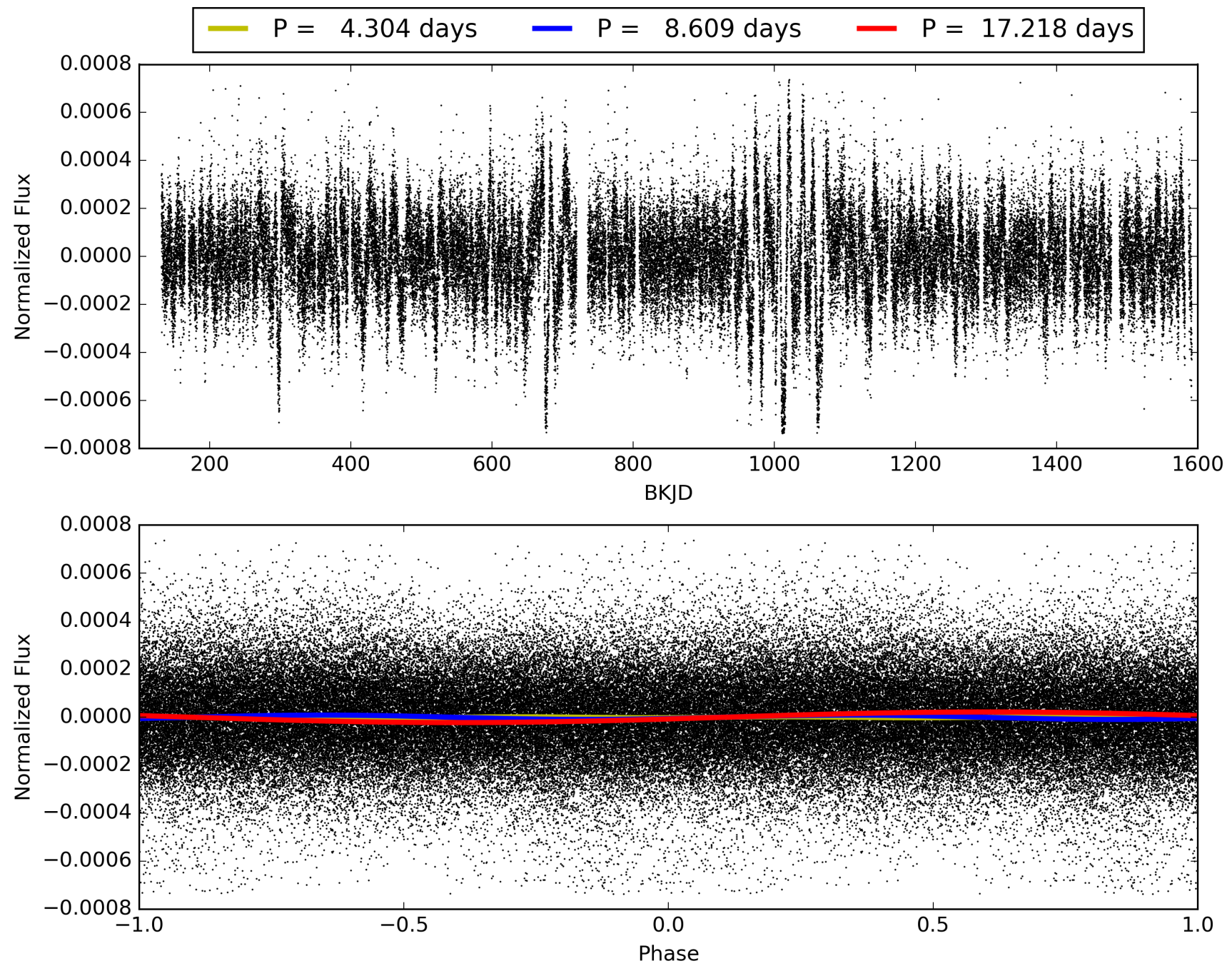
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:22:30 Z

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

TCE 007281979-06, PDC Light Curves

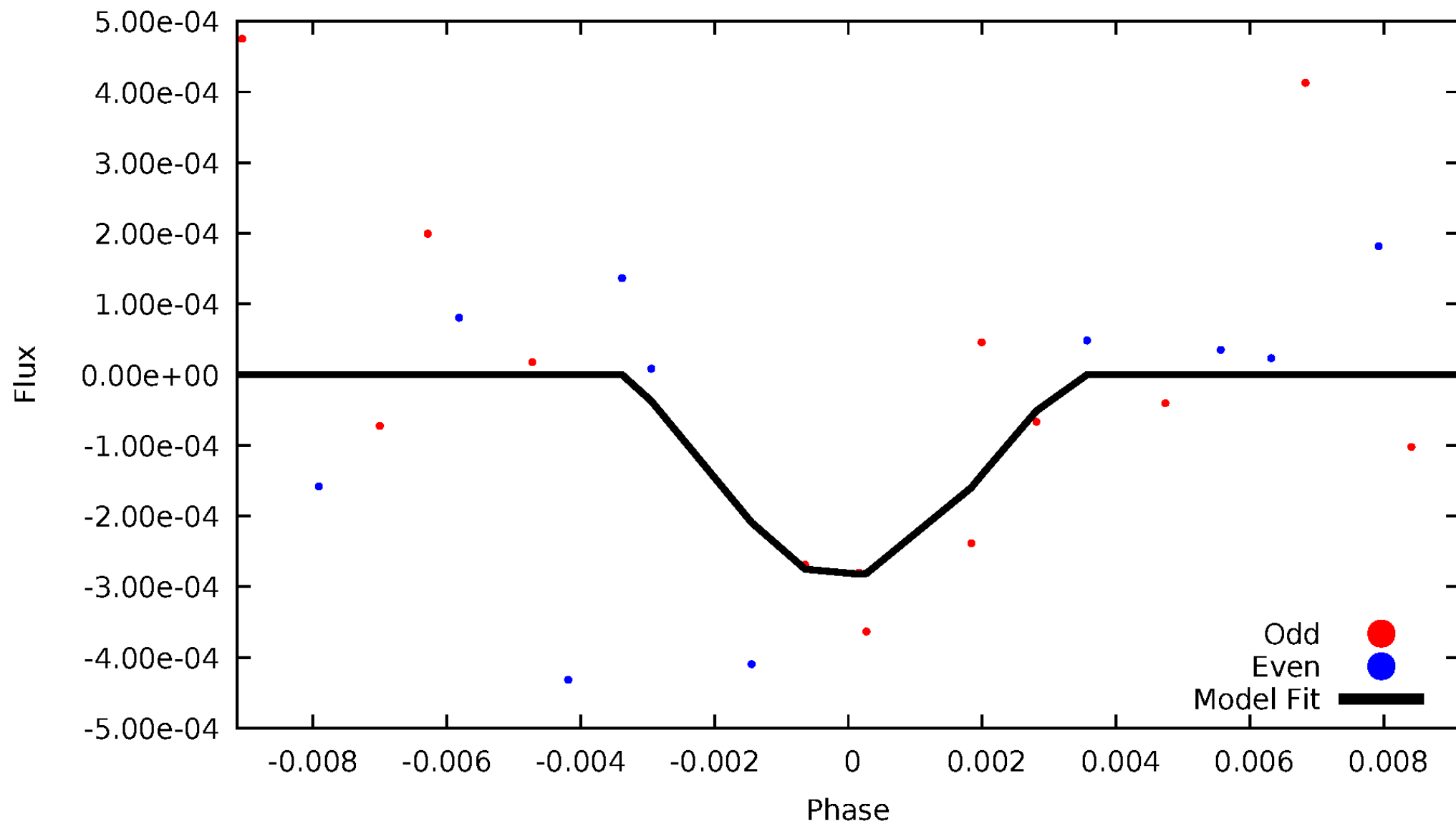


TCE 007281979-06



DV Odd/Even

TCE 007281979-06

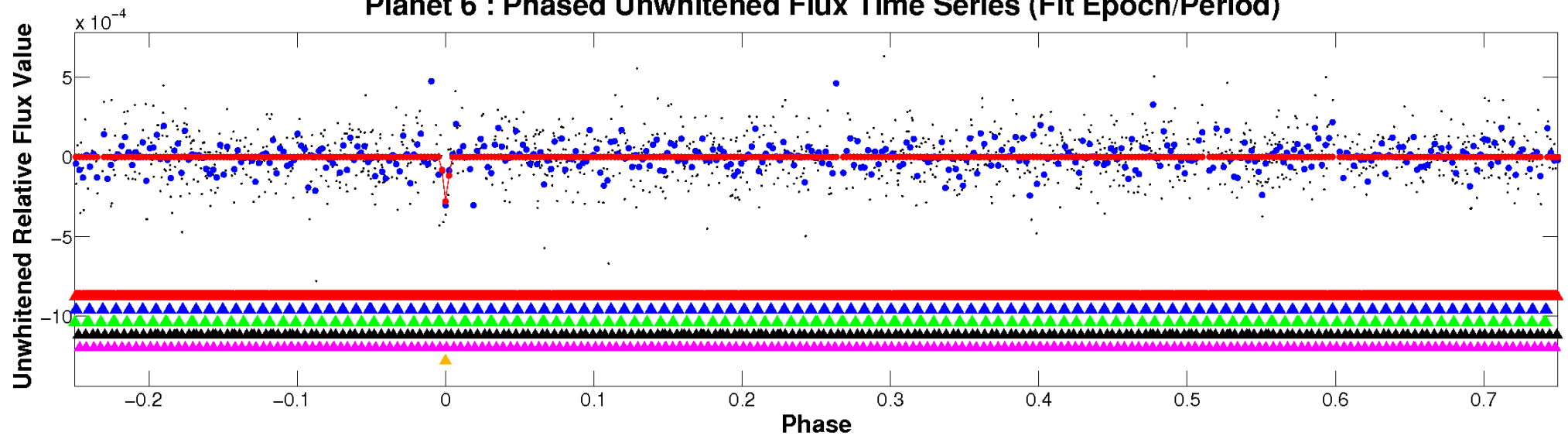


ALT Odd/Even

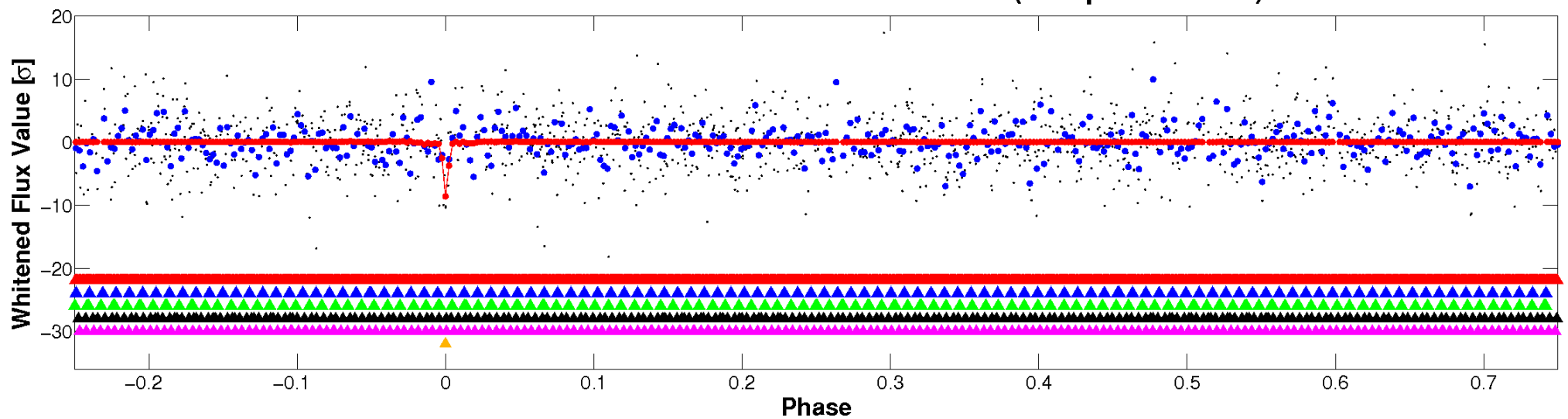
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

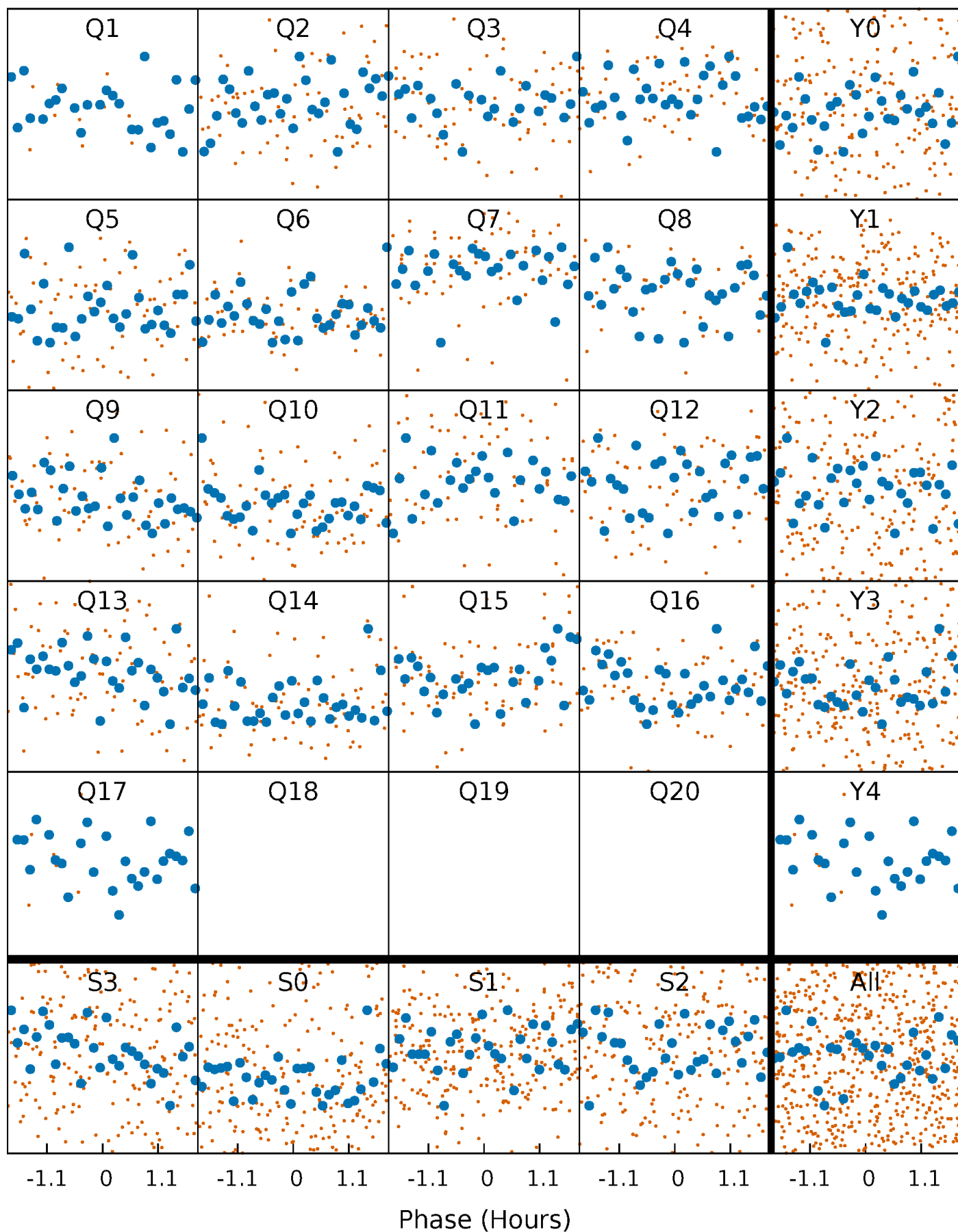


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



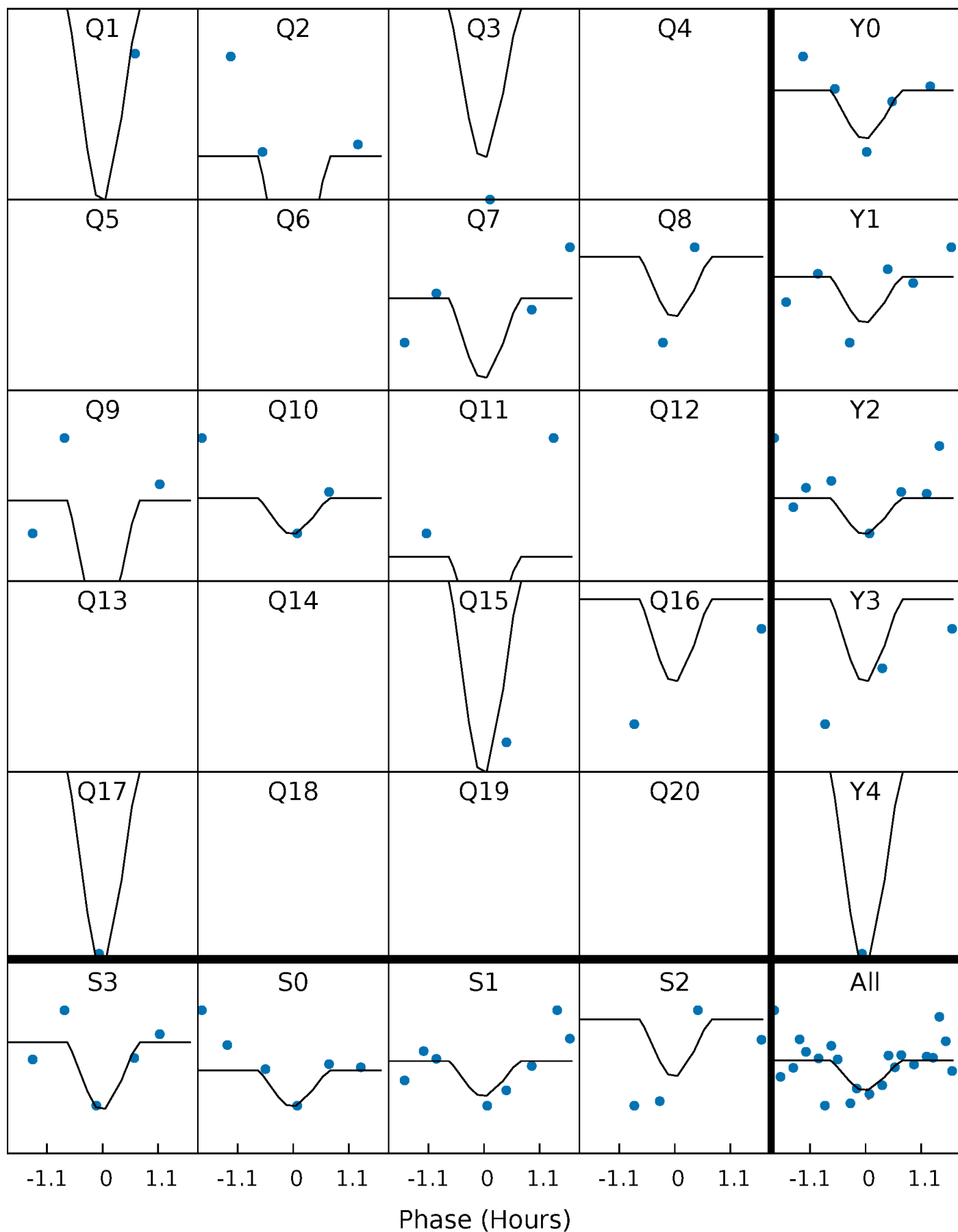
PDC Quarter-Phased Transit Curves

TCE 007281979-06 P= 8.608937 Days $T_0=134.065177$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007281979-06 P= 8.608937 Days $T_0=134.065177$ (BKJD)

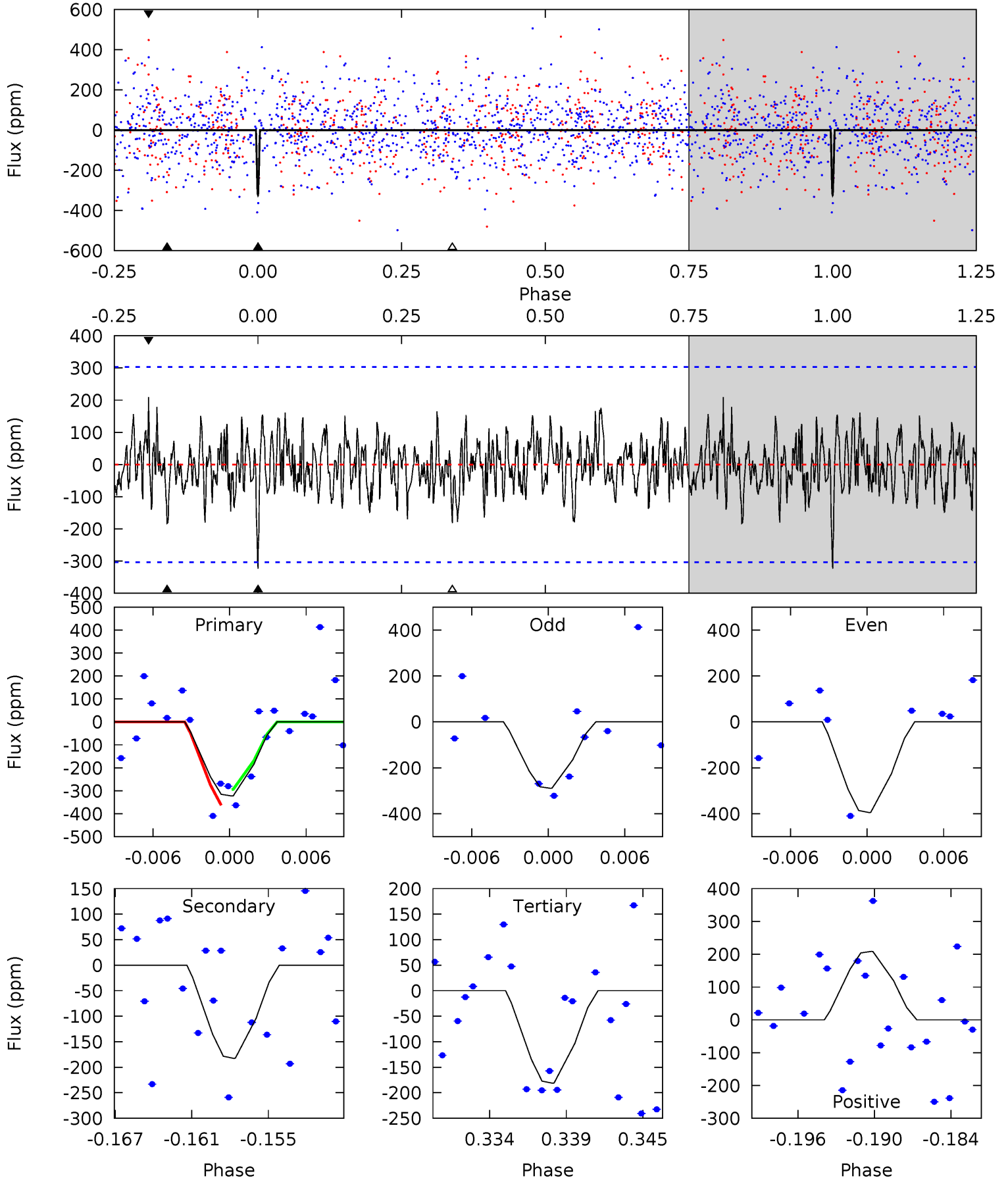


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007281979-06, P = 8.608937 Days, E = 125.456240 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.46	3.09	3.07	3.53	5.13	2.76	1.14	2.39	1.93	0.02	-0.44	0.67	0	0.39	0.55



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007281979

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5874^{+176}_{-132}	$3.872^{+0.315}_{-0.105}$	$-0.300^{+0.350}_{-0.250}$	$1.991^{+0.364}_{-0.676}$	$1.076^{+0.175}_{-0.175}$	$0.192^{+0.386}_{-0.073}$
	+3%/-2%	+8%/-3%	+117%/-83%	+18%/-34%	+16%/-16%	+201%/-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 007281979-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-183 ± 59	$8.19^{+8.13}_{-5.59}$	1727^{+114}_{-150}	3728^{+2276}_{-744}	10^{+98}_{-8}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

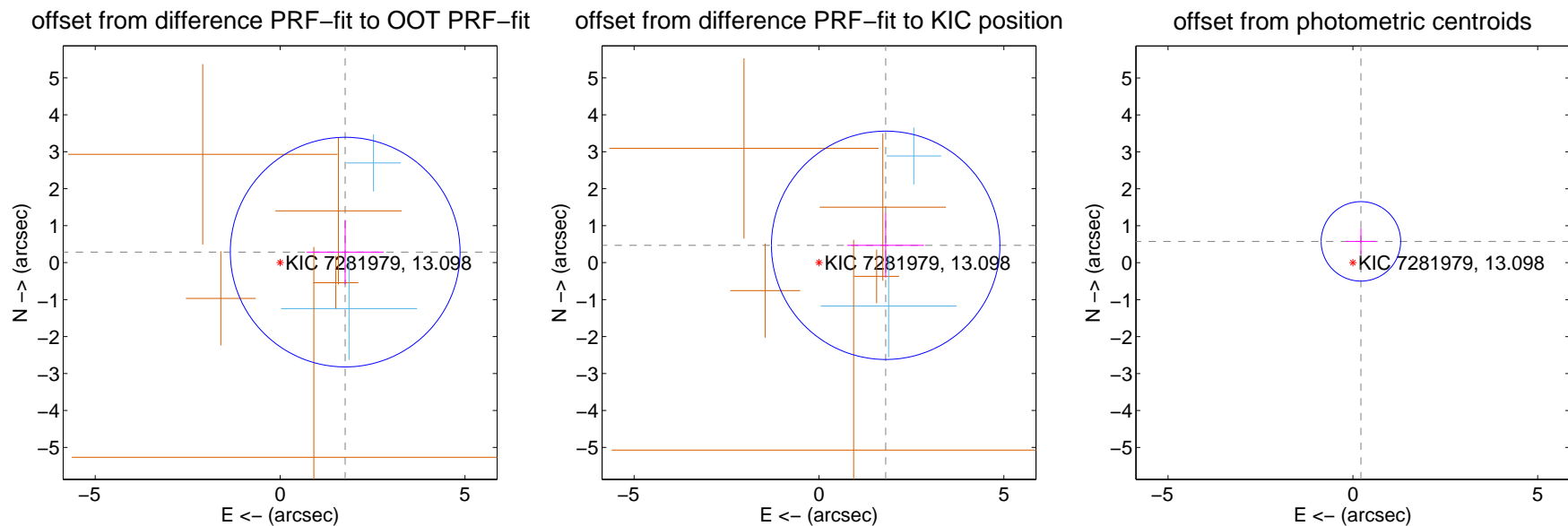
DV Centroid Data

Supplemental centroid analysis for 007281979-06. Kepler magnitude: 13.10. Transit SNR 17.45

There are 2 quarters with good PRF difference image offsets

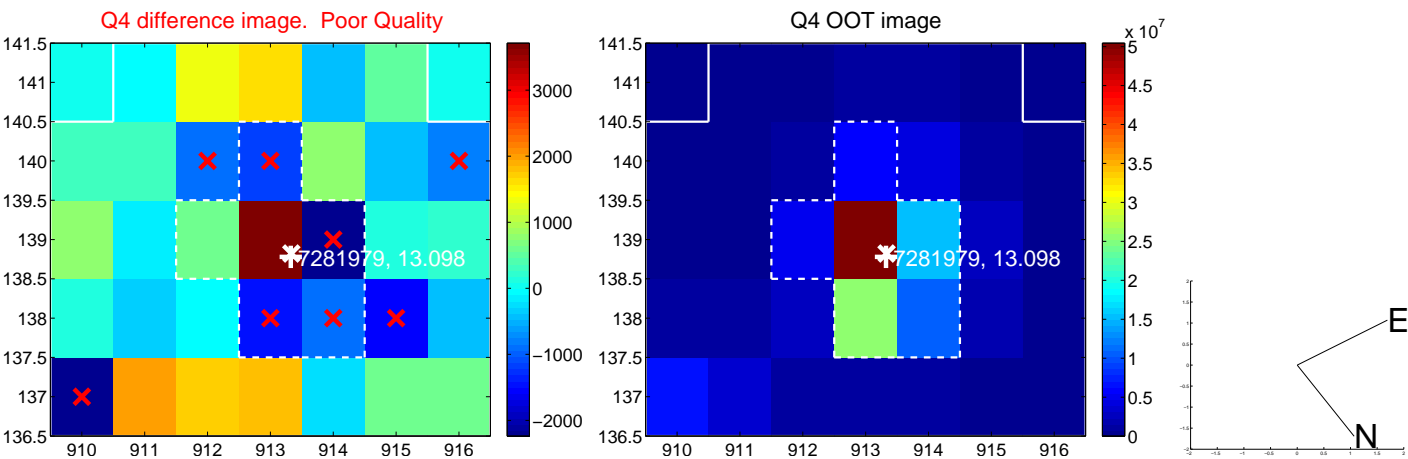
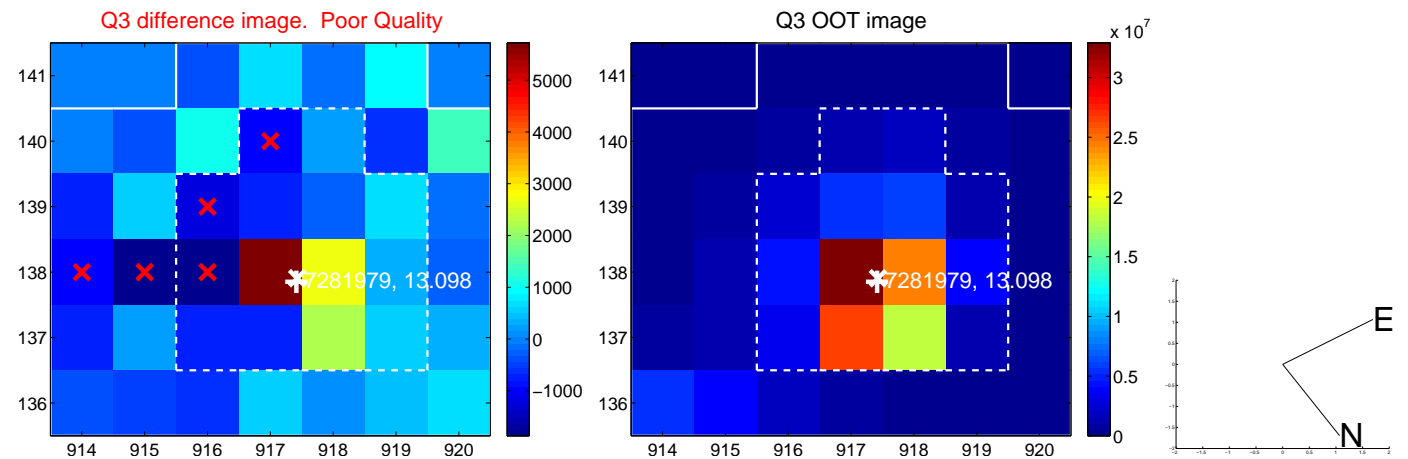
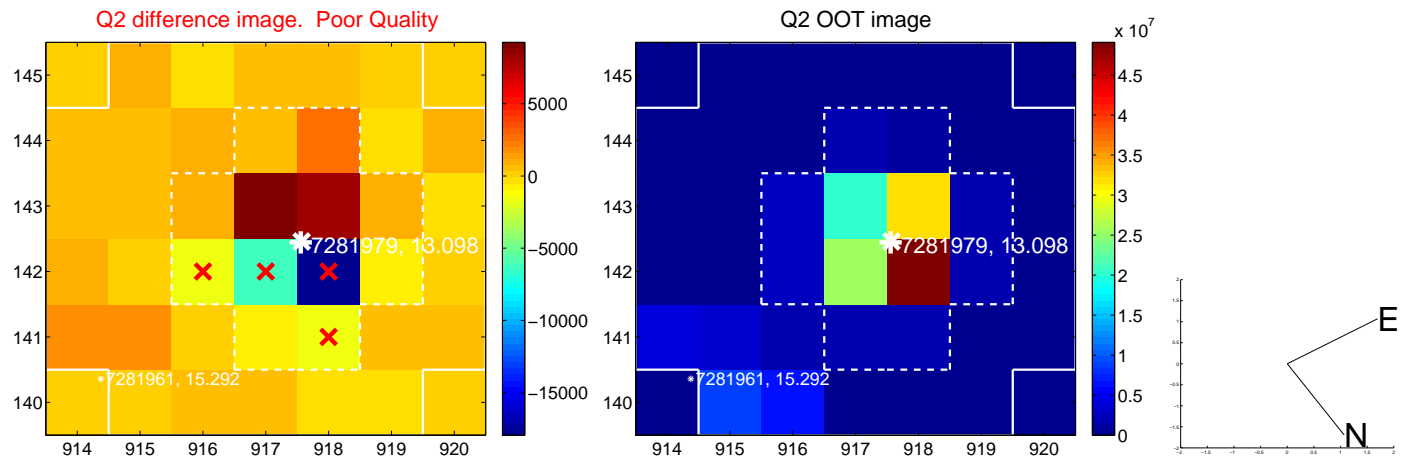
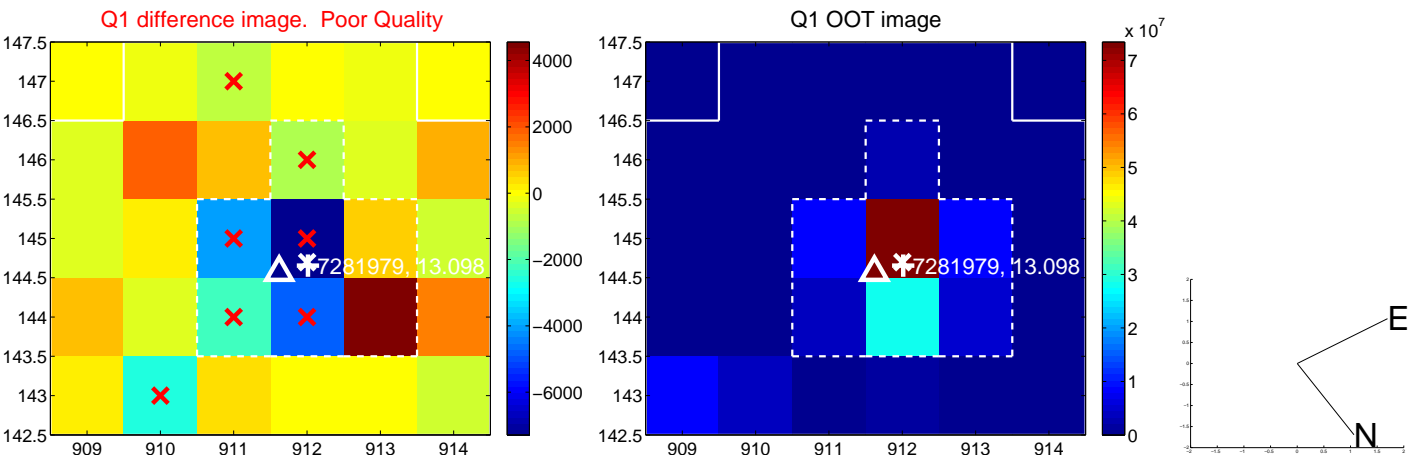
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.783 ± 1.036	1.72	-1.760 ± 1.040	0.285 ± 0.872
PRF-fit source offset from KIC position	1.864 ± 1.030	1.81	-1.804 ± 1.040	0.469 ± 0.872
photometric centroid source offset	0.62 ± 0.36	1.72	-0.22 ± 0.41	0.58 ± 0.35

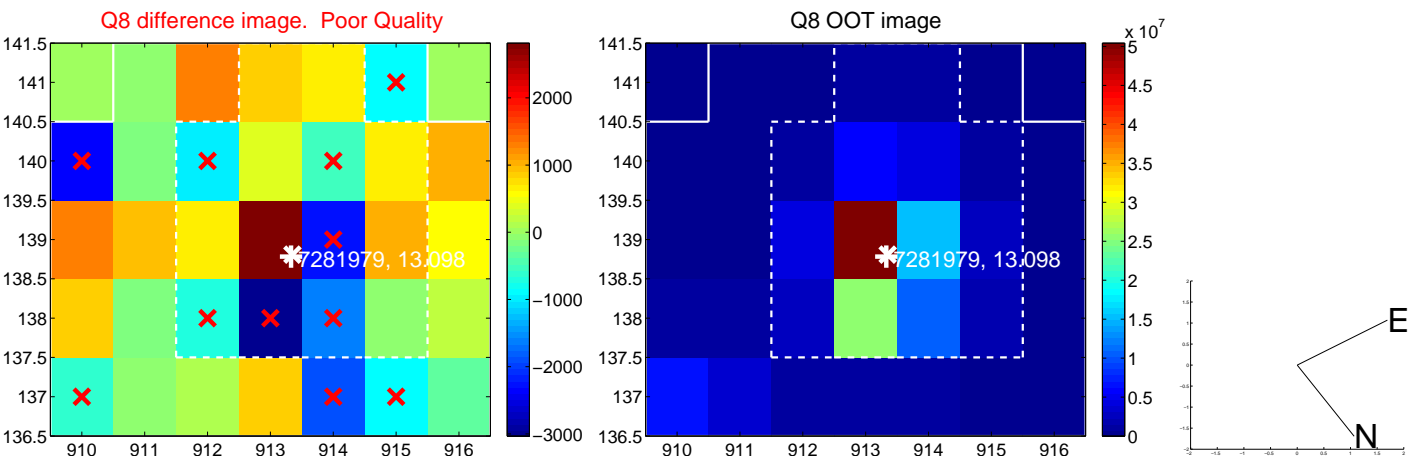
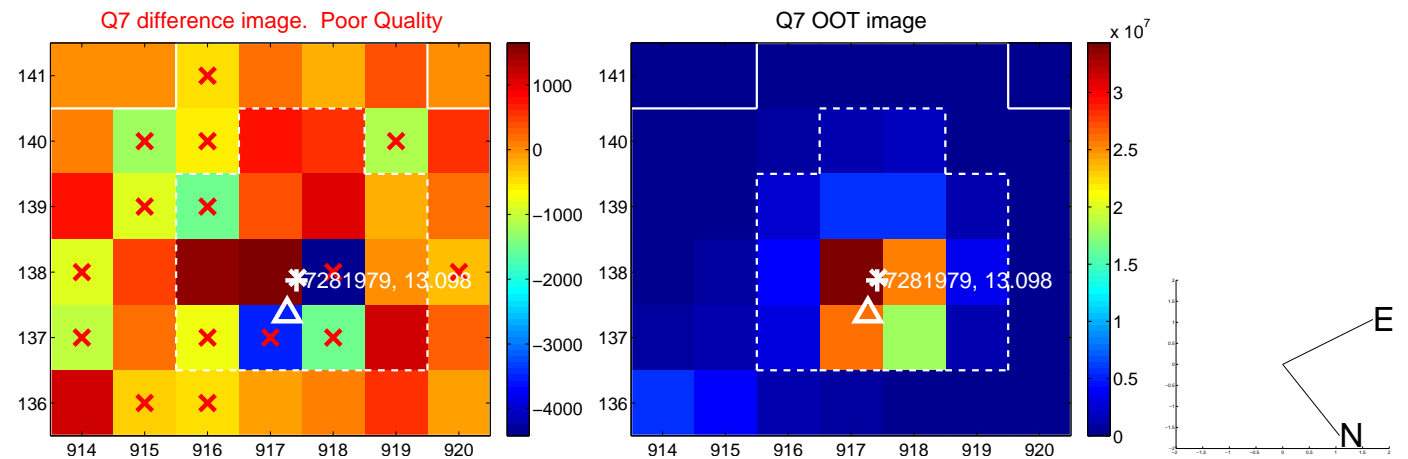
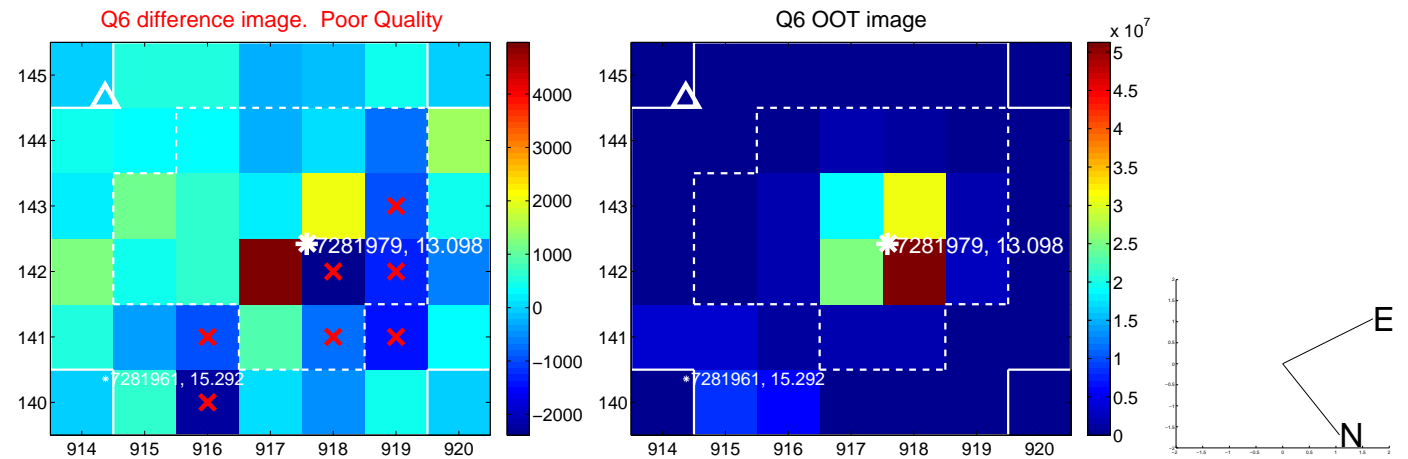
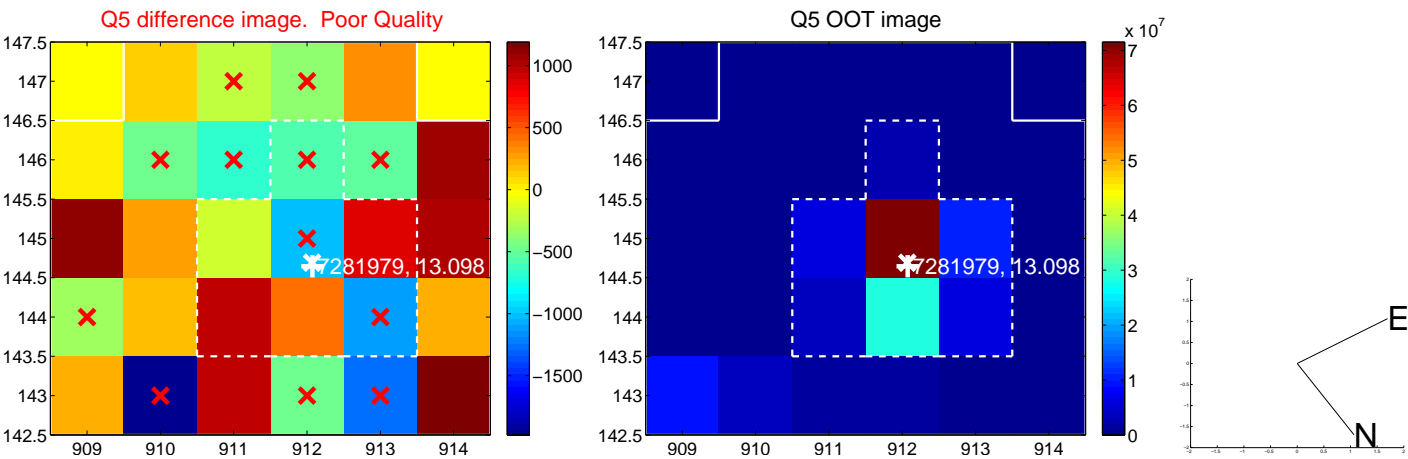


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

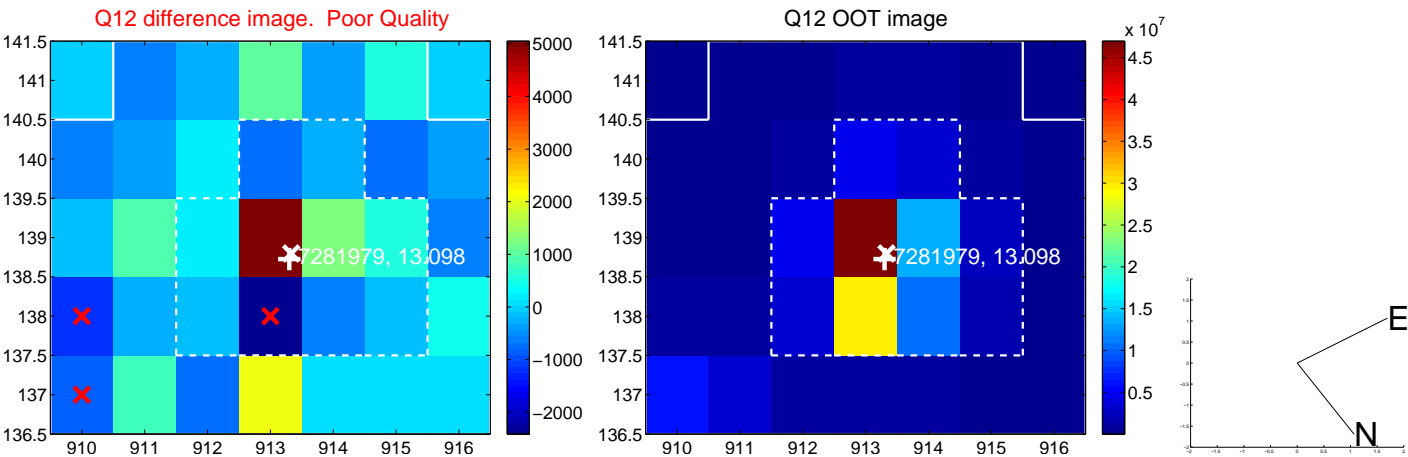
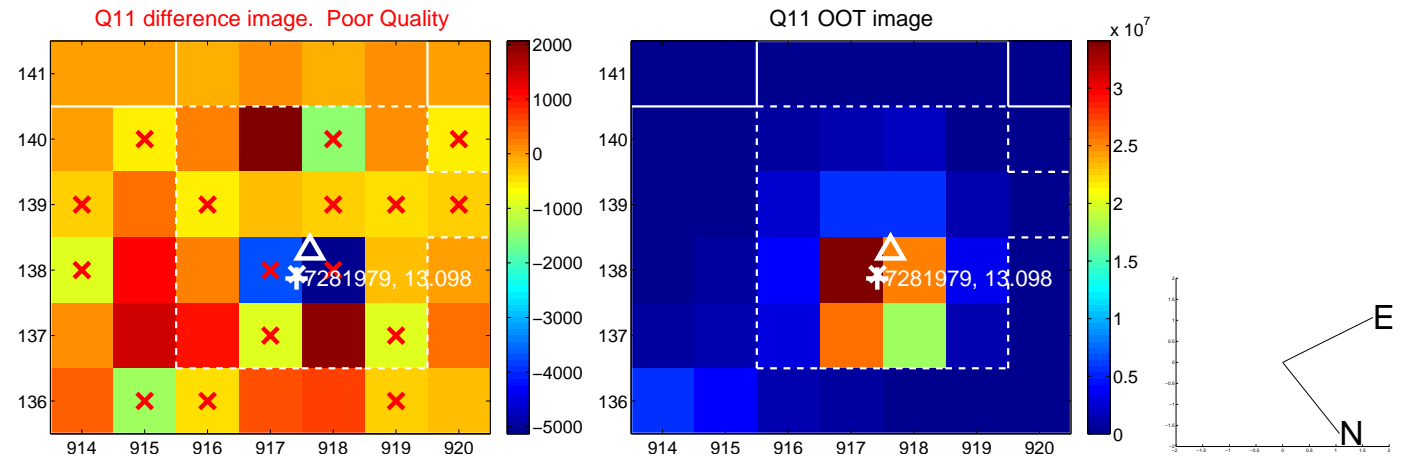
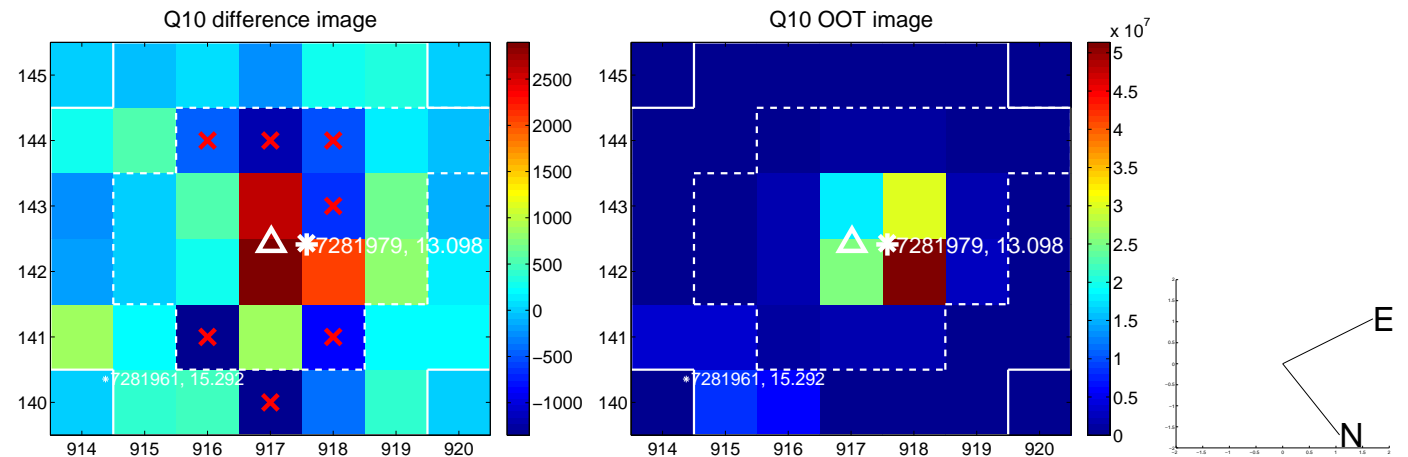
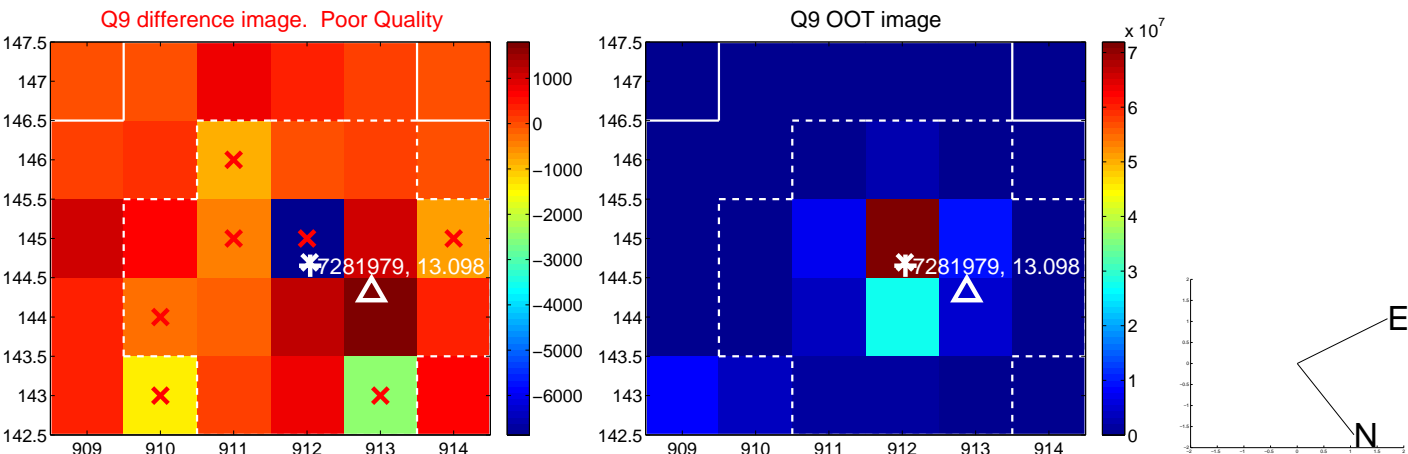
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



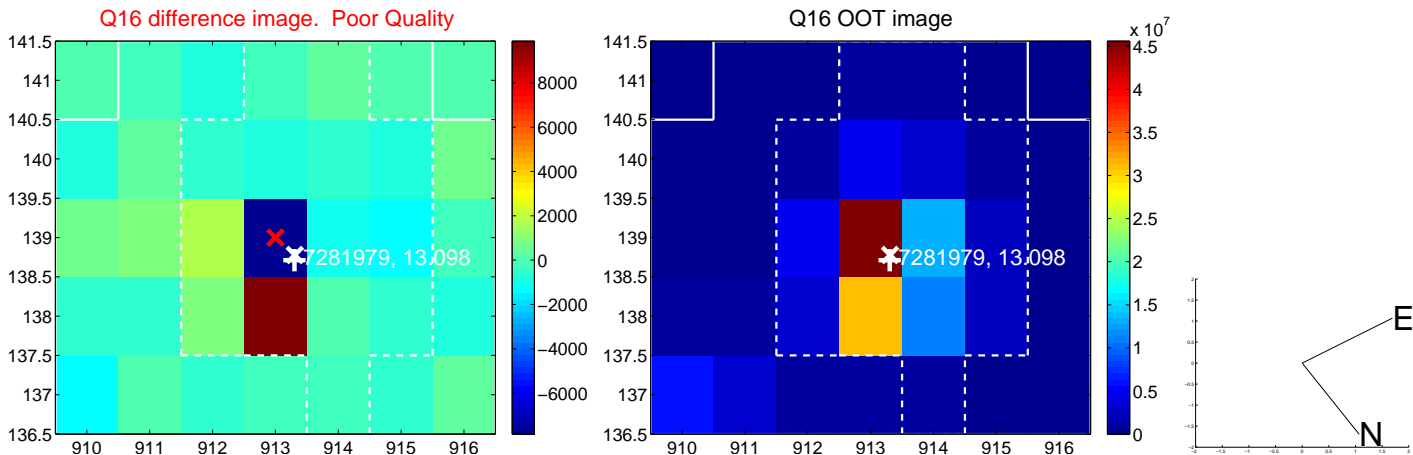
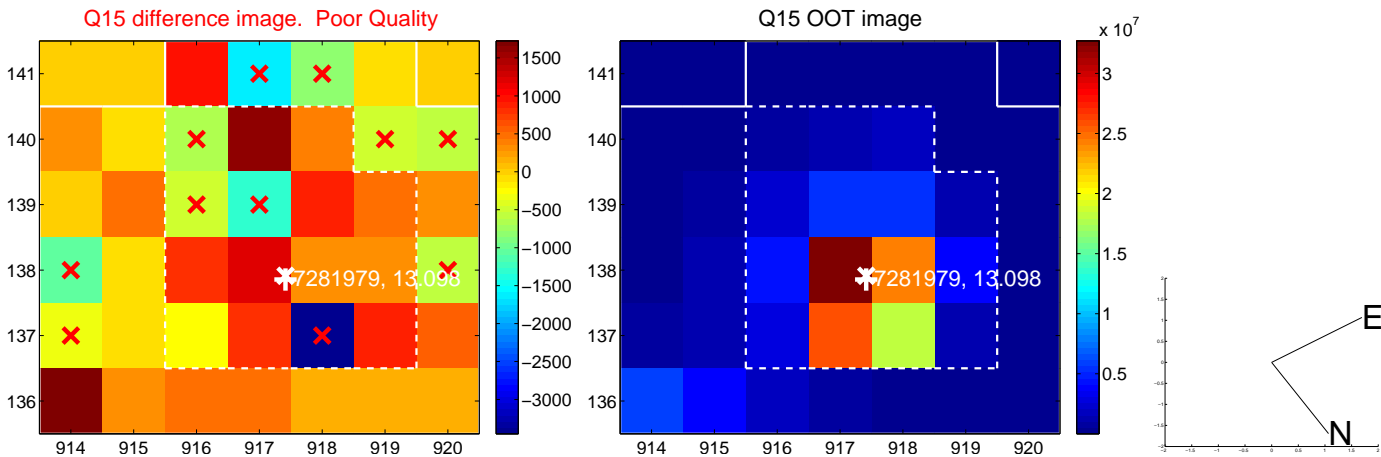
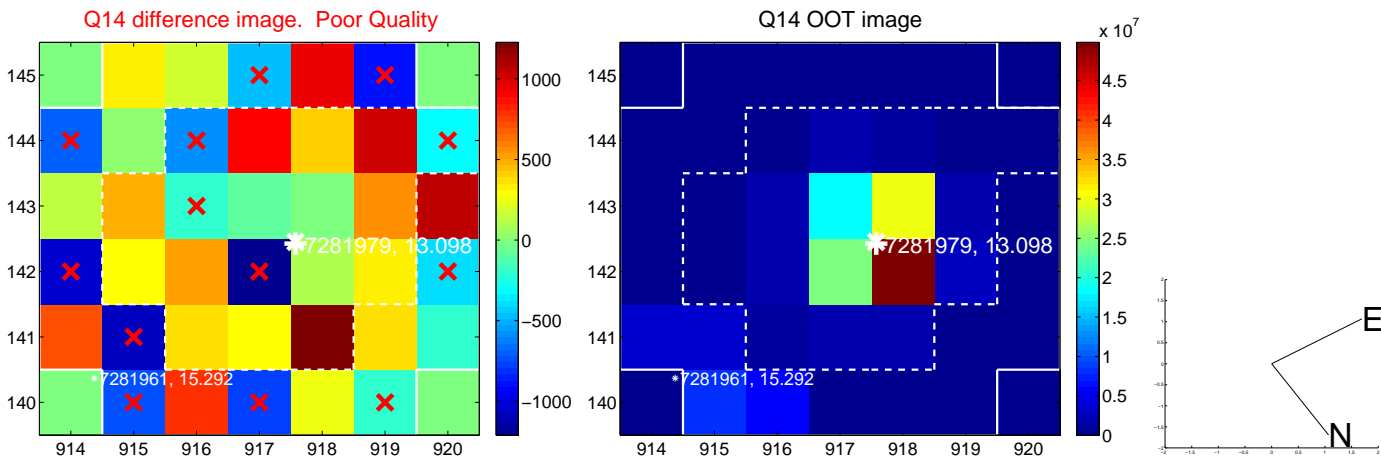
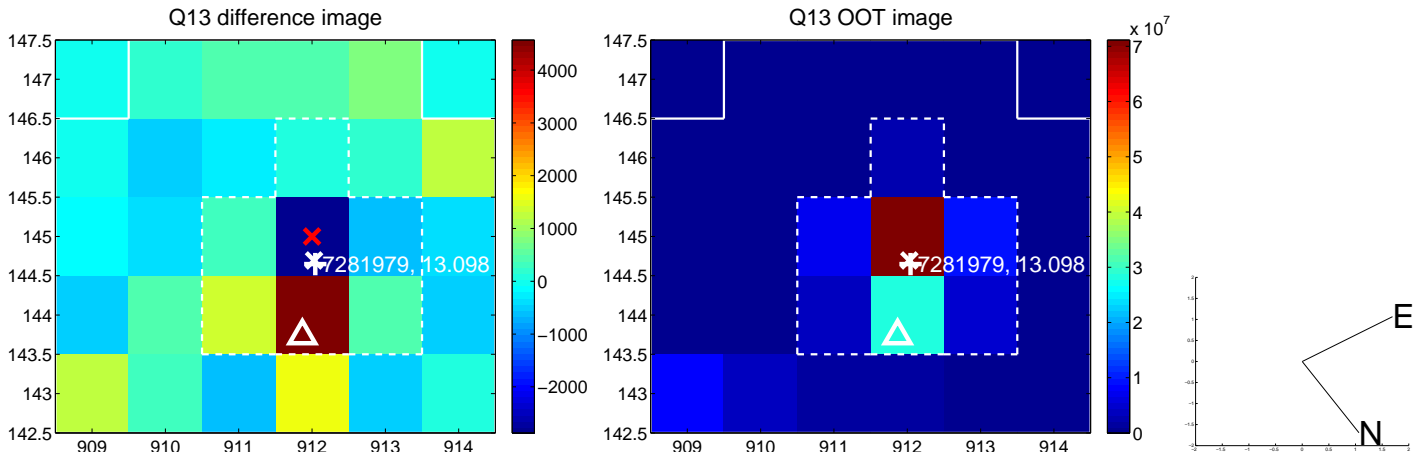
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



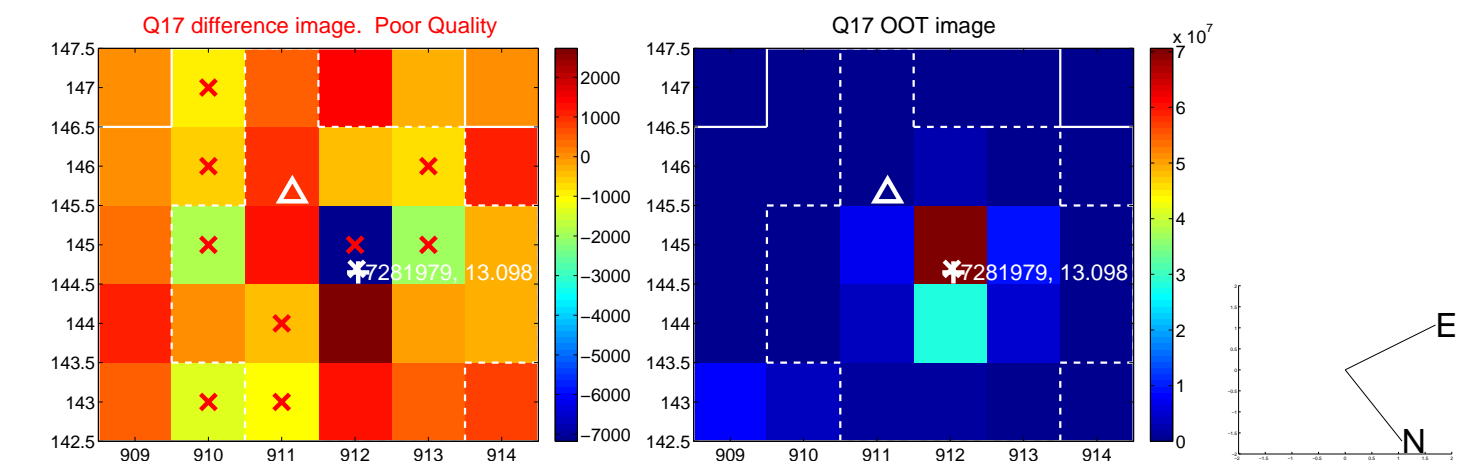
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



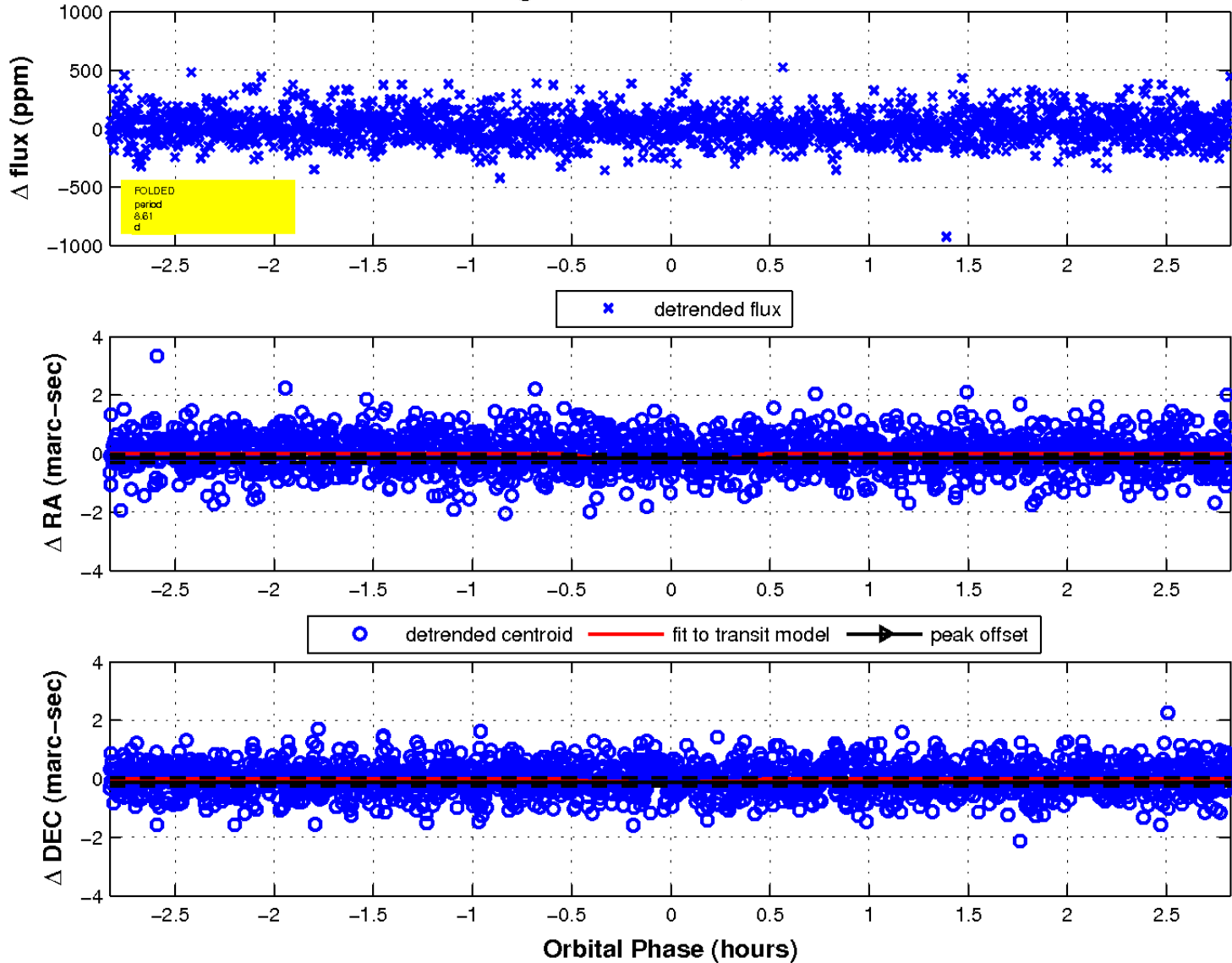
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 6 of 6



UKIRT Image

Declination

