

KIC 005475668

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})
005475668-01	OBS	No	0.628755	132.180580	4.4	4.649	9.4	4.4	2.01	8211	0.43	54751.94
005475668-02	OBS	No	23.046835	153.053781	182.2	1.423	13.8	14.1	2.01	8211	2.85	449.67
005475668-03	OBS	No	17.179508	134.861136	202.2	0.982	12.6	14.4	2.01	8211	3.10	665.31
005475668-04	OBS	No	16.794083	134.128818	131.7	1.375	12.3	9.3	2.01	8211	2.60	685.75
005475668-06	OBS	No	13.574715	138.475006	195.5	0.752	12.1	12.3	2.01	8211	2.97	910.75
005475668-07	OBS	No	6.968977	137.476932	180.3	0.705	8.1	13.1	2.01	8211	2.85	2215.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475668-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005475668-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

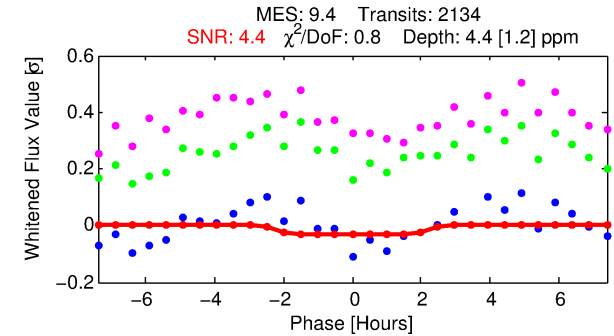
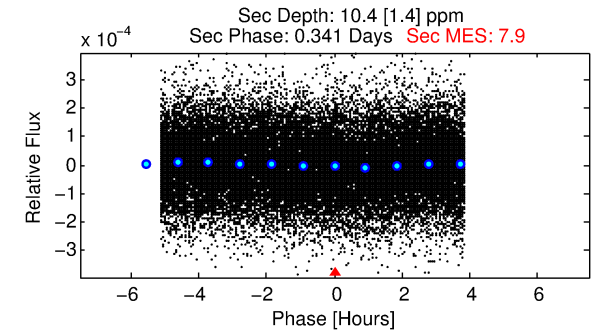
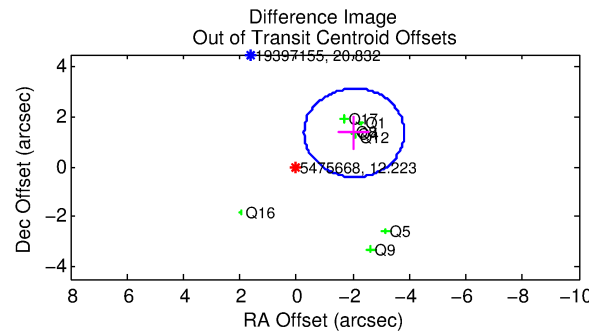
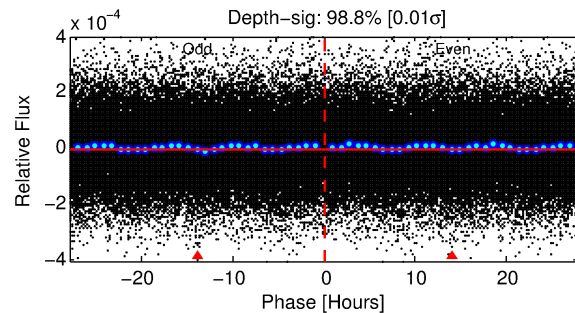
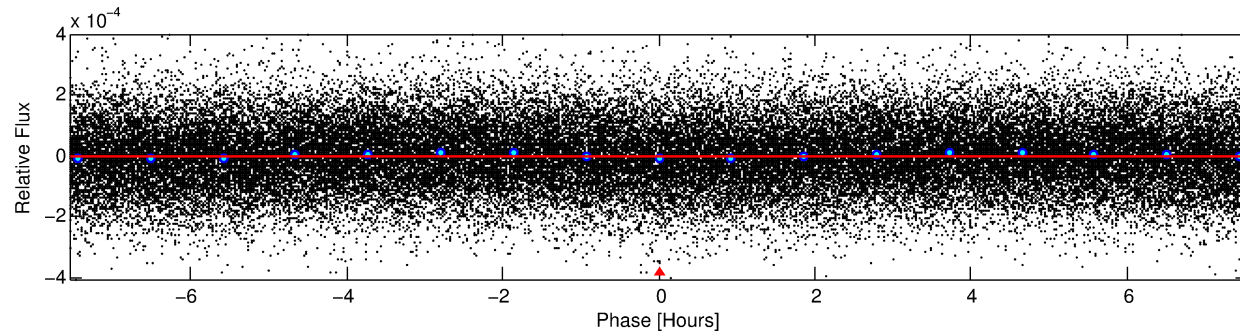
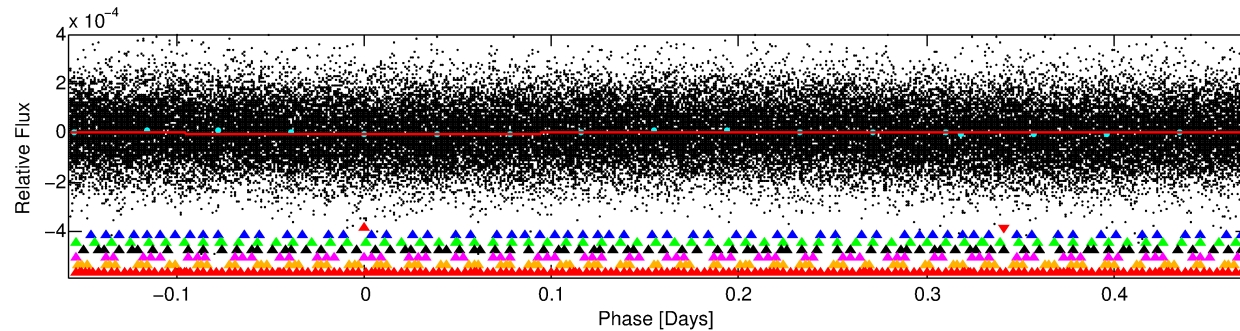
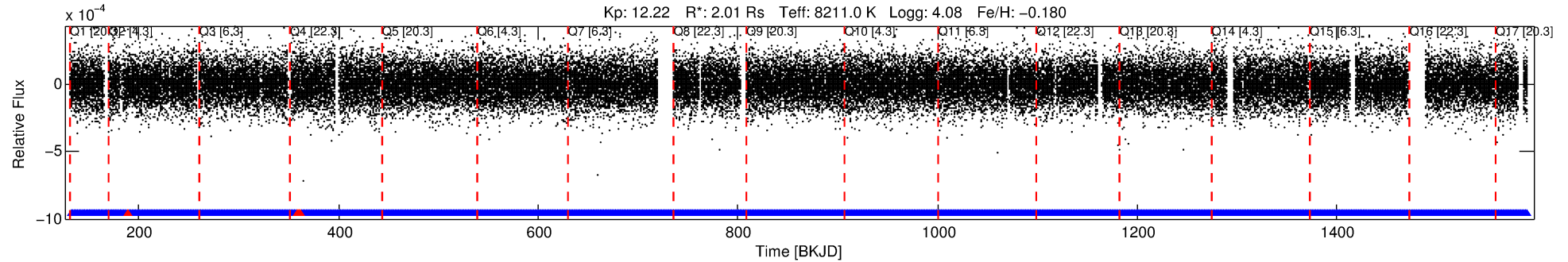
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475668-01

No Significant Match Found

DV One-Page Summary

KIC: 5475668 Candidate: 1 of 7 Period: 0.629 d



DV Fit Results:

Period = 0.62875 [0.00002] d
Epoch = 132.1806 [0.0104] BKJD
Rp/R* = 0.0020 [0.0033]
a/R* = 1.20 [3.60]
b = 0.30 [30.20]
Seff = 54751.94 [18567.08]
Teq = 3901 [331] K
Rp = 0.43 [0.73] Re
a = 0.0174 [0.0034] AU
Ag = 9.32 [31.64] [0.26 σ]
Teffp = 10537 [8919] K [0.74 σ]

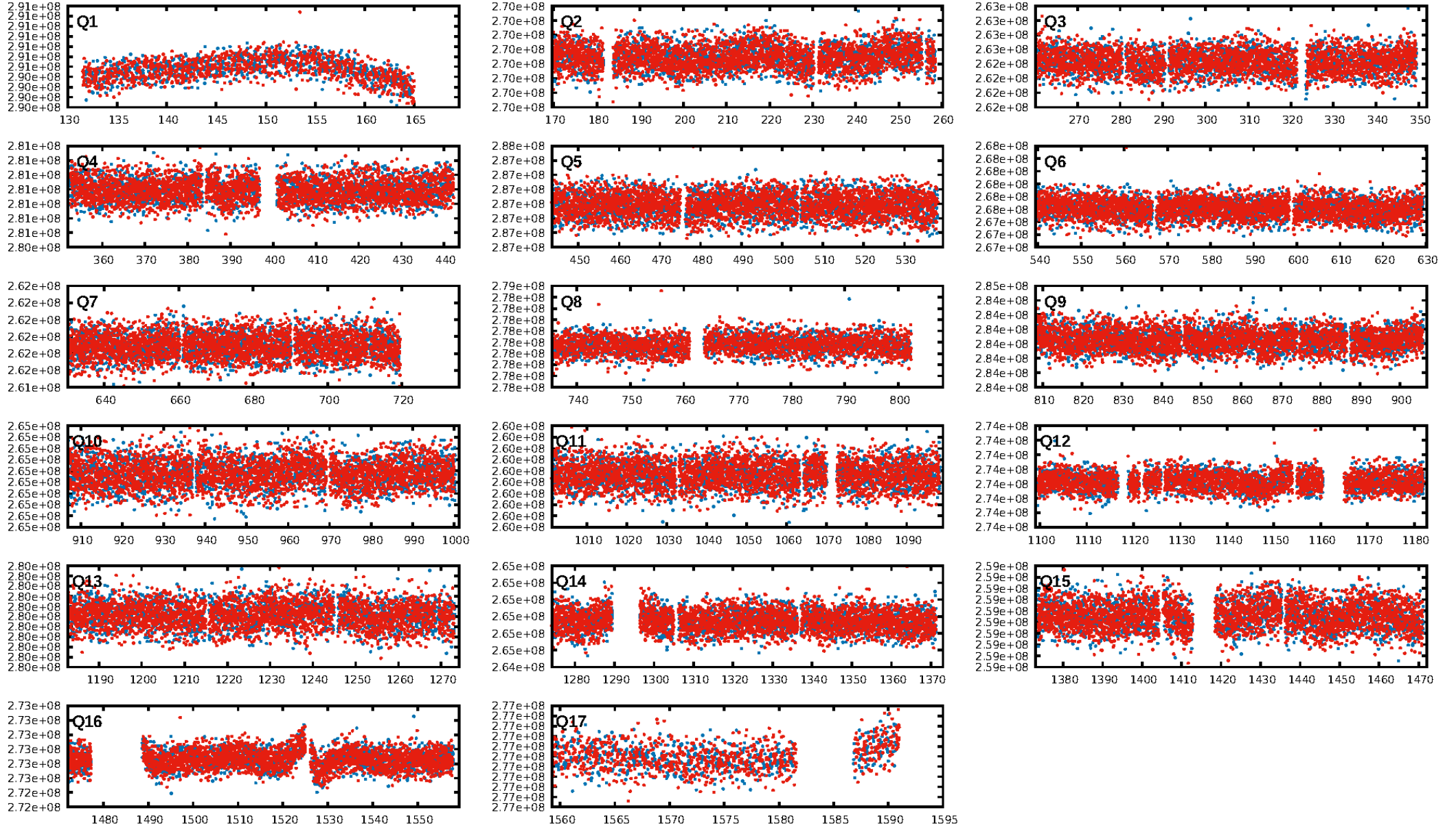
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [32.36 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.27e-42
RollingBand-fgt: 1.00 [2033/2037]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.451 arcsec [4.14 σ]
KicOffset-rm: 2.558 arcsec [4.40 σ]
OotOffset-st: 0/0/4/4 [8]
KicOffset-st: 0/0/4/4 [8]
DiffImageQuality-fgm: 0.00 [0/8]
DiffImageOverlap-fno: 1.00 [17/17]

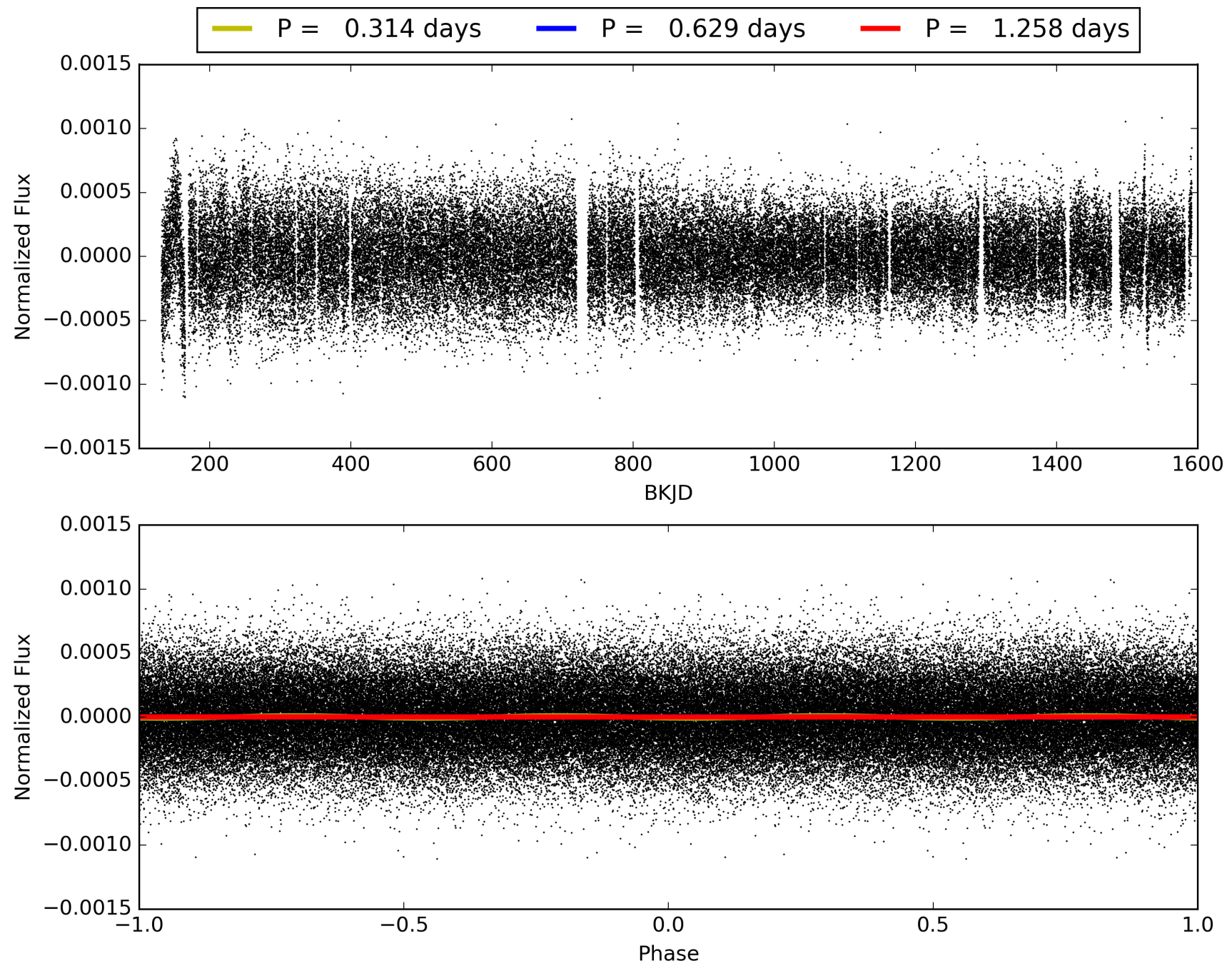
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:28:06 Z

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

TCE 005475668-01, PDC Light Curves

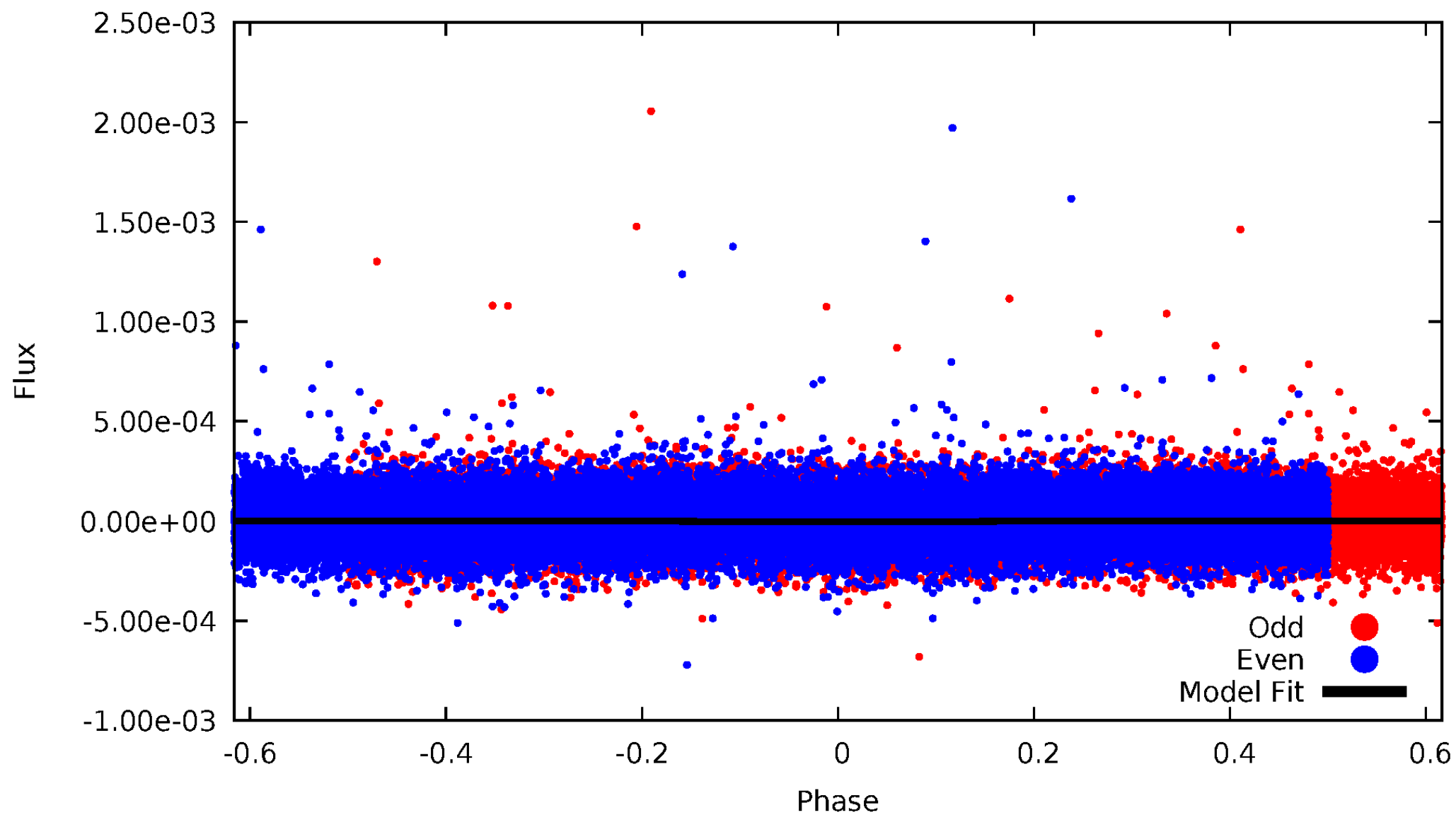


TCE 005475668-01



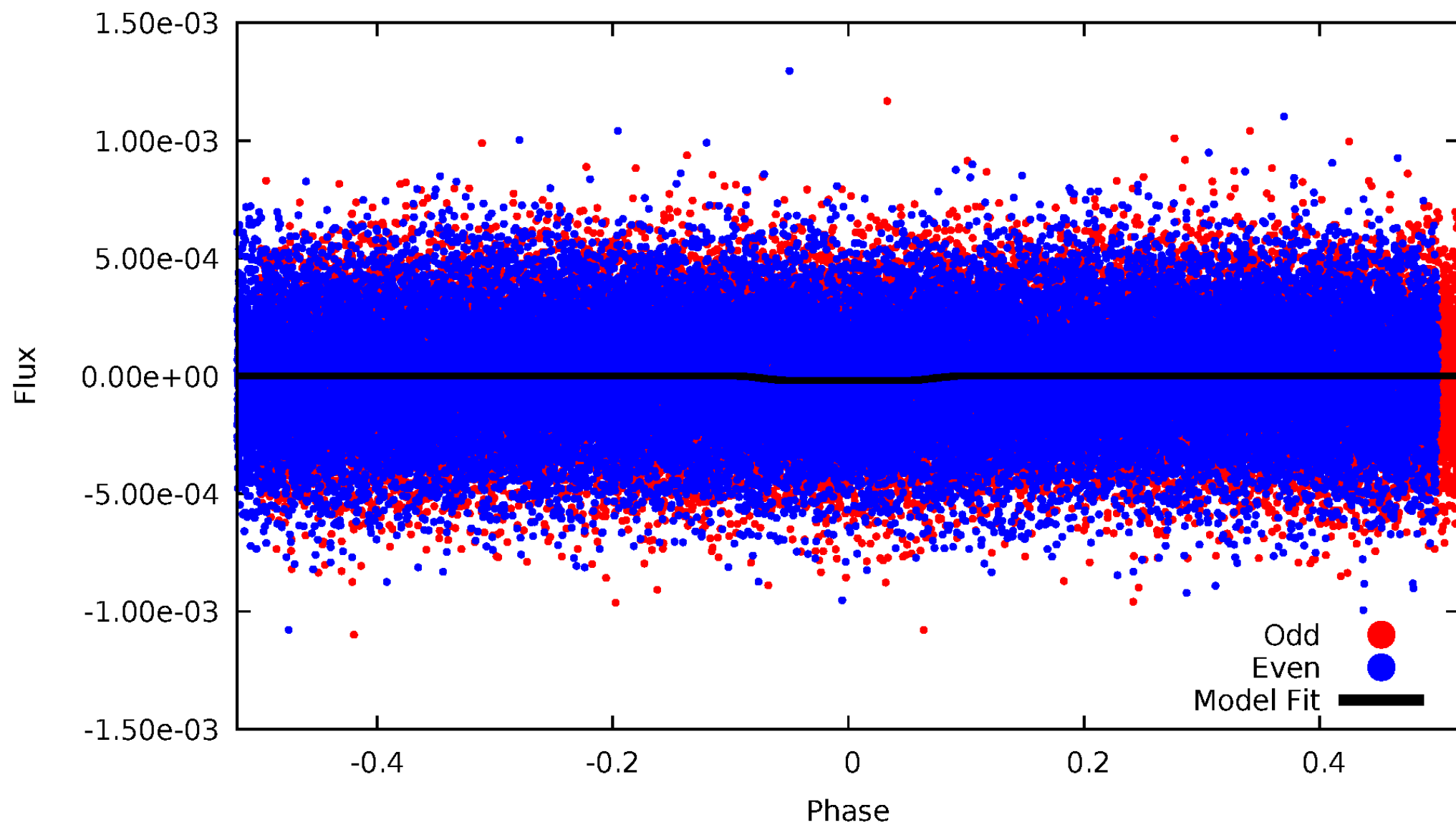
DV Odd/Even

TCE 005475668-01



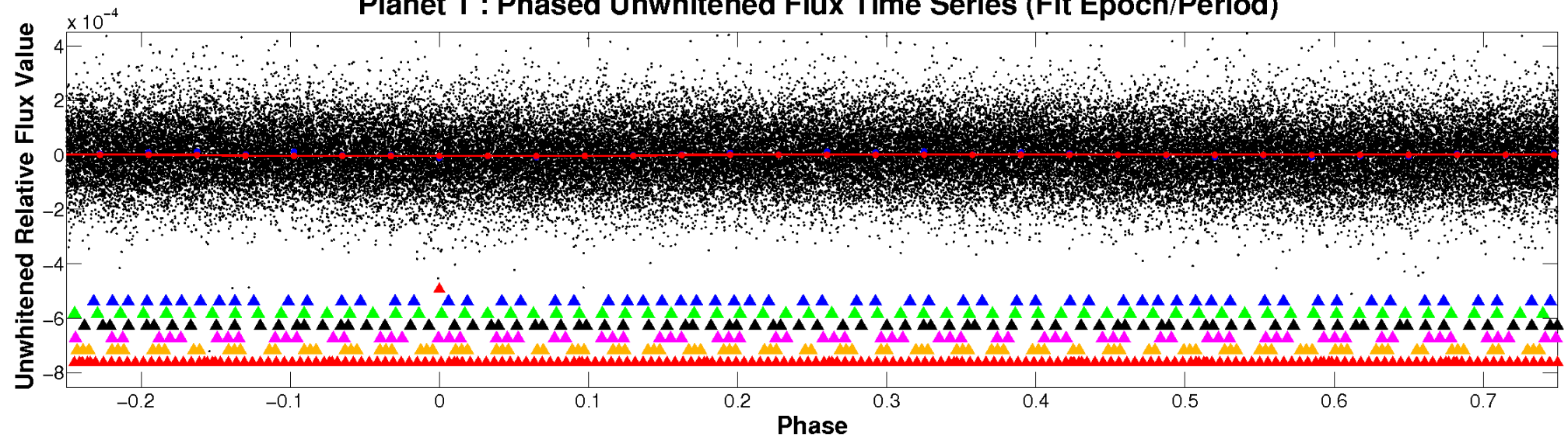
ALT Odd/Even

TCE 005475668-01

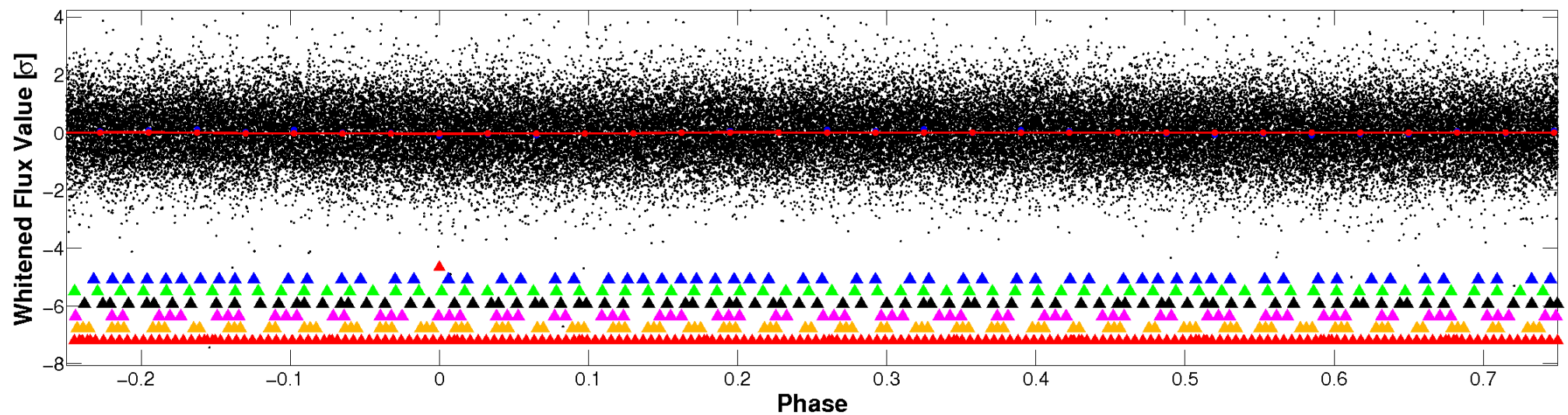


Non-Whitened Vs. Whitened Light Curve

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

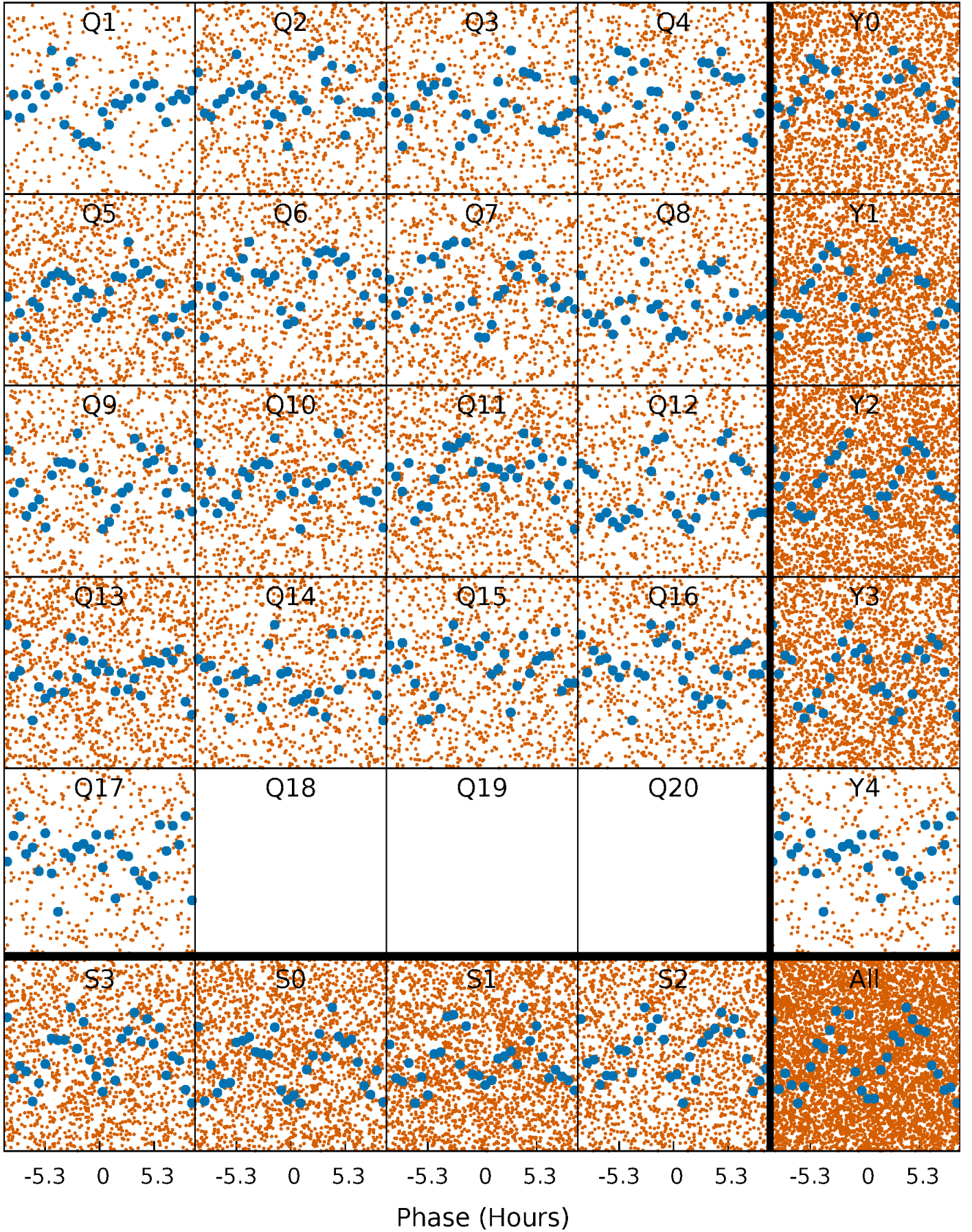


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



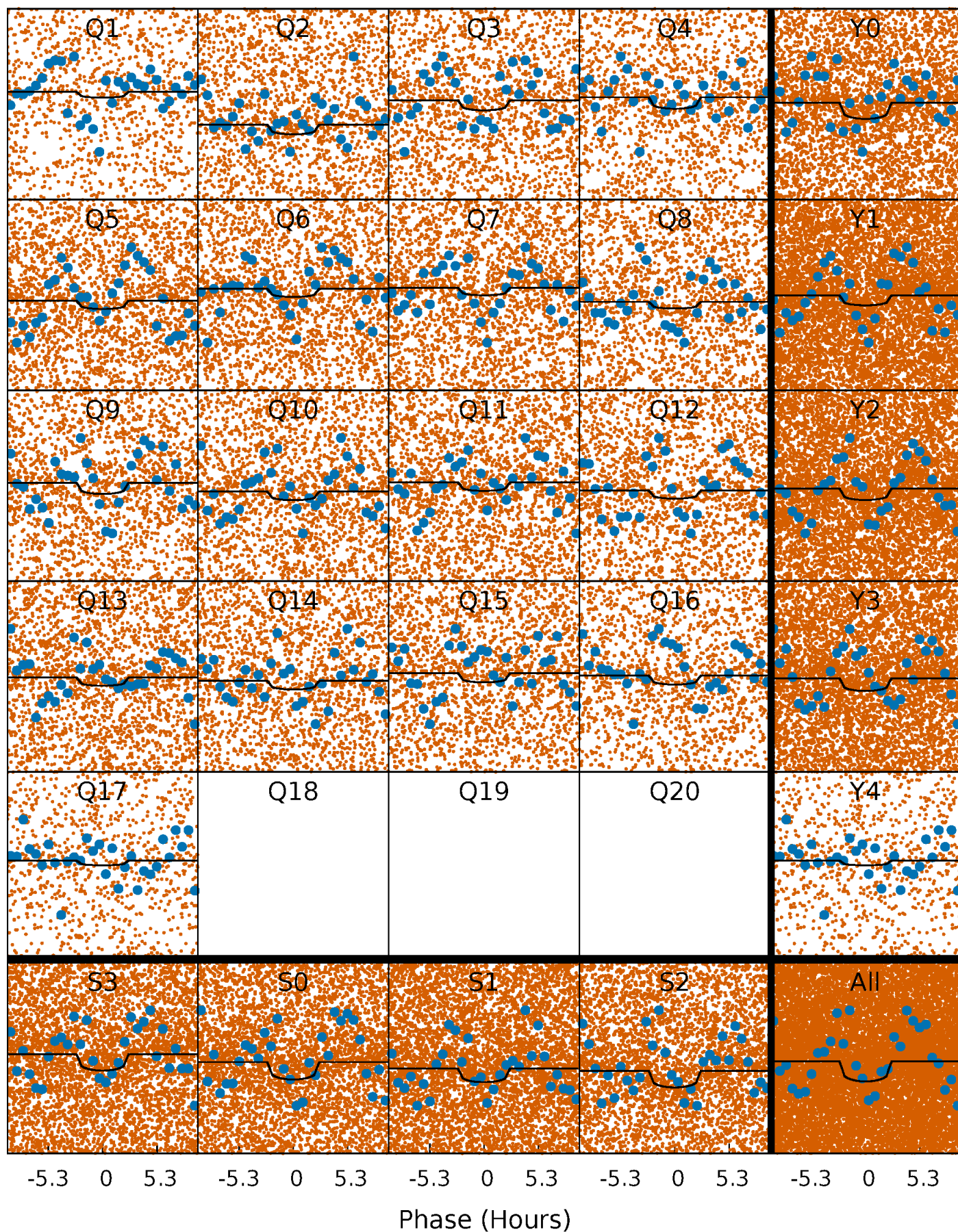
PDC Quarter-Phased Transit Curves

TCE 005475668-01 P= 0.628755 Days $T_0=132.180580$ (BKJD)



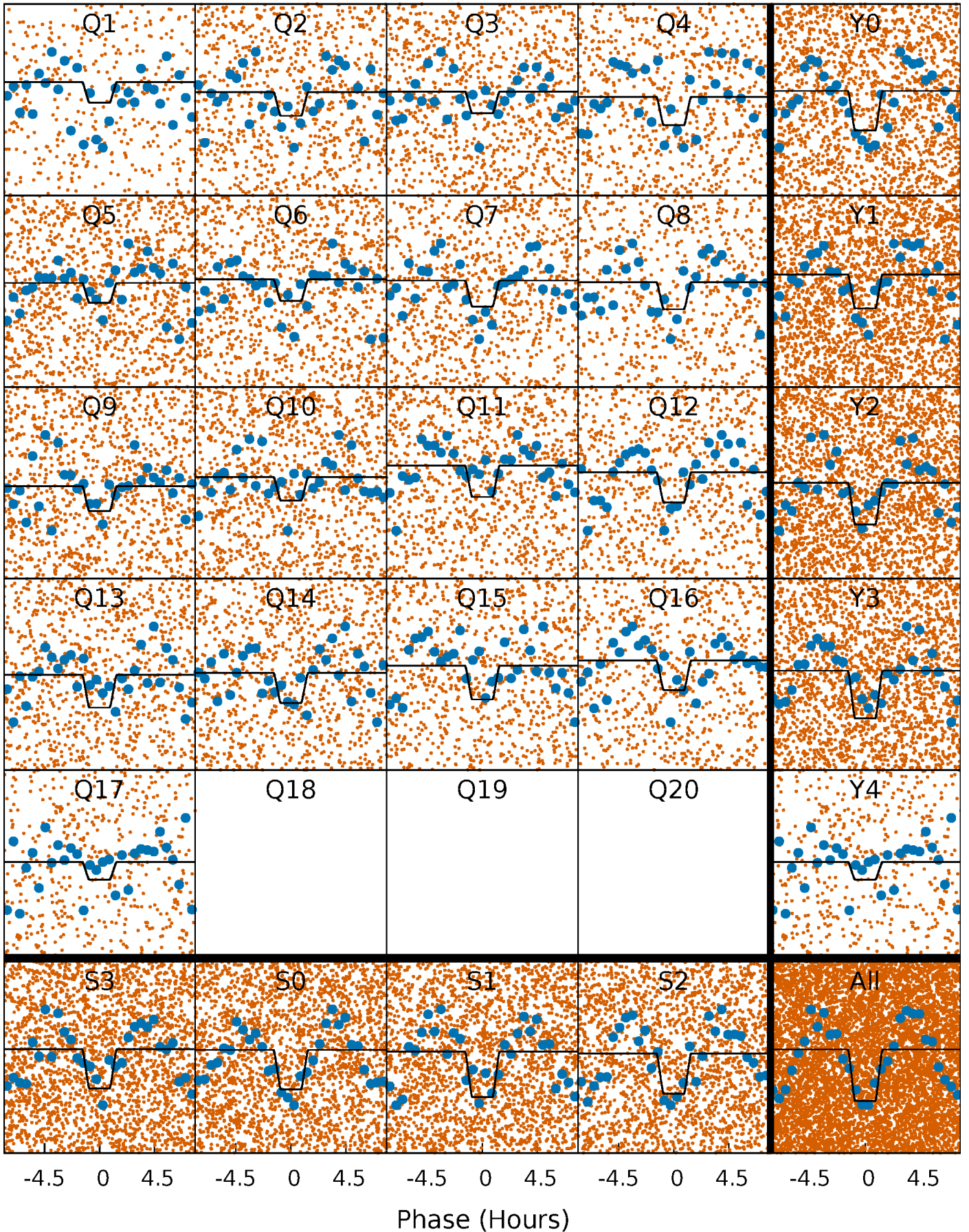
DV Quarter-Phased Transit Curves

TCE 005475668-01 P= 0.628755 Days $T_0=132.180580$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

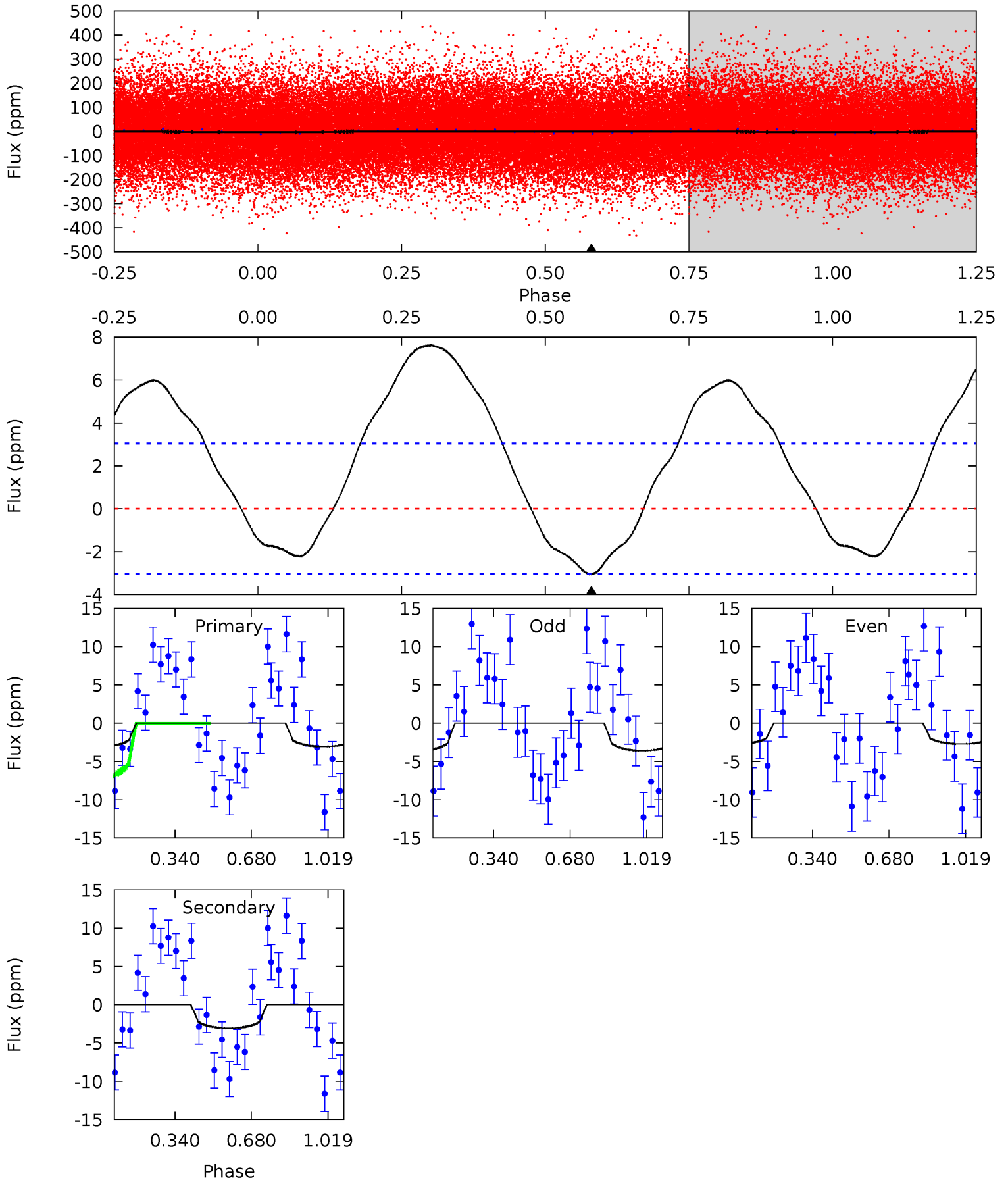
TCE 005475668-01 P= 0.628821 Days $T_0=132.138813$ (BKJD)



DV Model-Shift Uniqueness Test

005475668-01, P = 0.628755 Days, E = 130.923070 Days

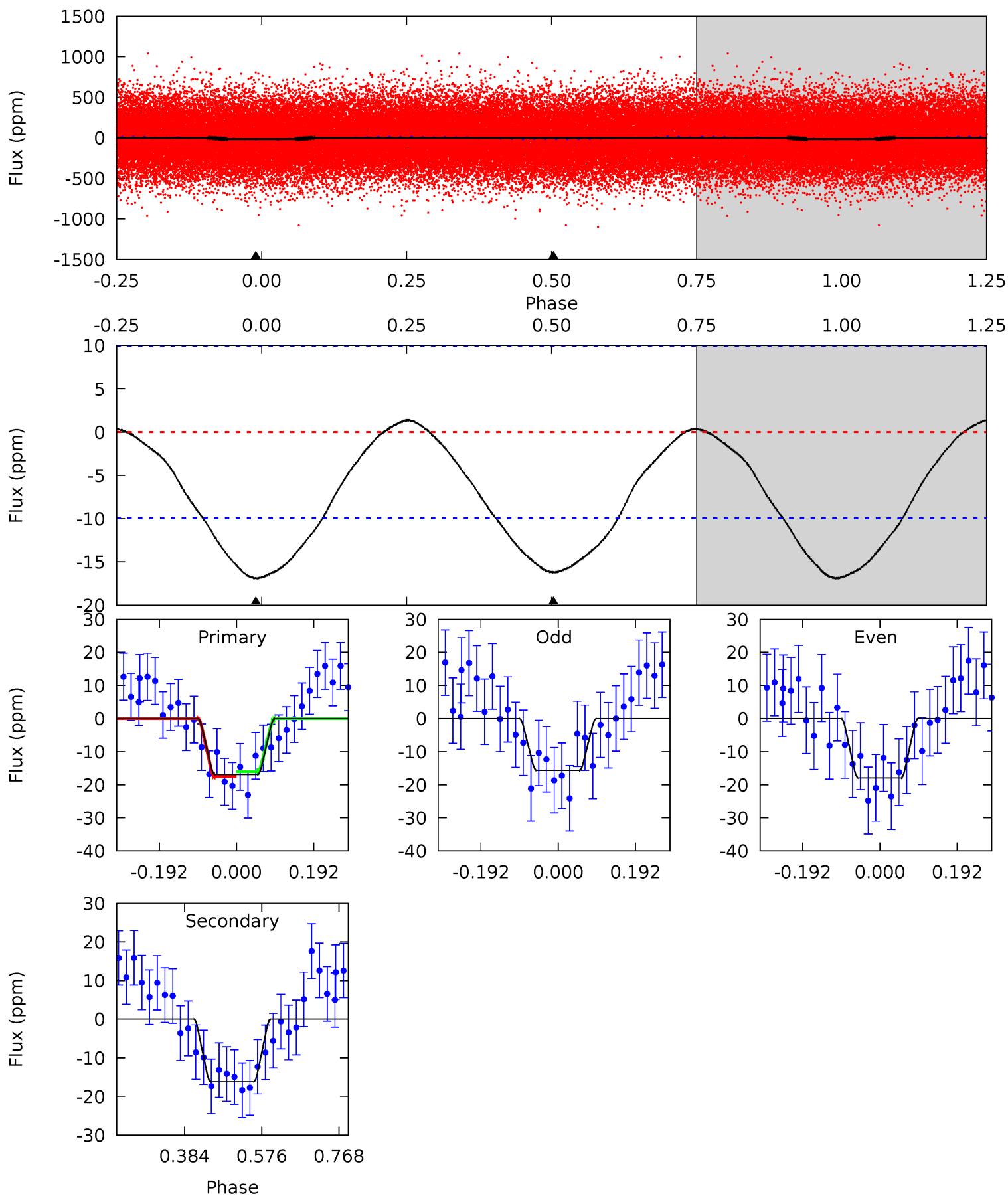
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.33	4.33	0	0	4.30	0.95	3.42	4.33	4.33	4.33	4.33	0.62	0.69	0.71	4.44



Alt Model-Shift Uniqueness Test

005475668-01, P = 0.628821 Days, E = 131.509992 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.54	7.23	0	0	4.43	1.30	0.39	7.54	7.54	7.23	7.23	0.50	1.13	0.08	0.32



Stellar Parameters For KIC 005475668

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8211^{+226}_{-340}	$4.077^{+0.165}_{-0.150}$	$-0.180^{+0.250}_{-0.300}$	$2.013^{+0.462}_{-0.462}$	$1.763^{+0.146}_{-0.271}$	$0.304^{+0.266}_{-0.122}$
	+3%/-4%	+4%/-4%	+139%/-167%	+23%/-23%	+8%/-15%	+87%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005475668-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 1	$0.67^{+0.61}_{-0.43}$	5405^{+354}_{-358}	5509^{+5433}_{-8157}	$1.103^{+7.954}_{-0.810}$
Alt.	-16 ± 2	$0.99^{+0.79}_{-0.60}$	5433^{+366}_{-371}	7302^{+8257}_{-2218}	$2.781^{+15.598}_{-1.937}$

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 $A_{obs} \gg 1.0$

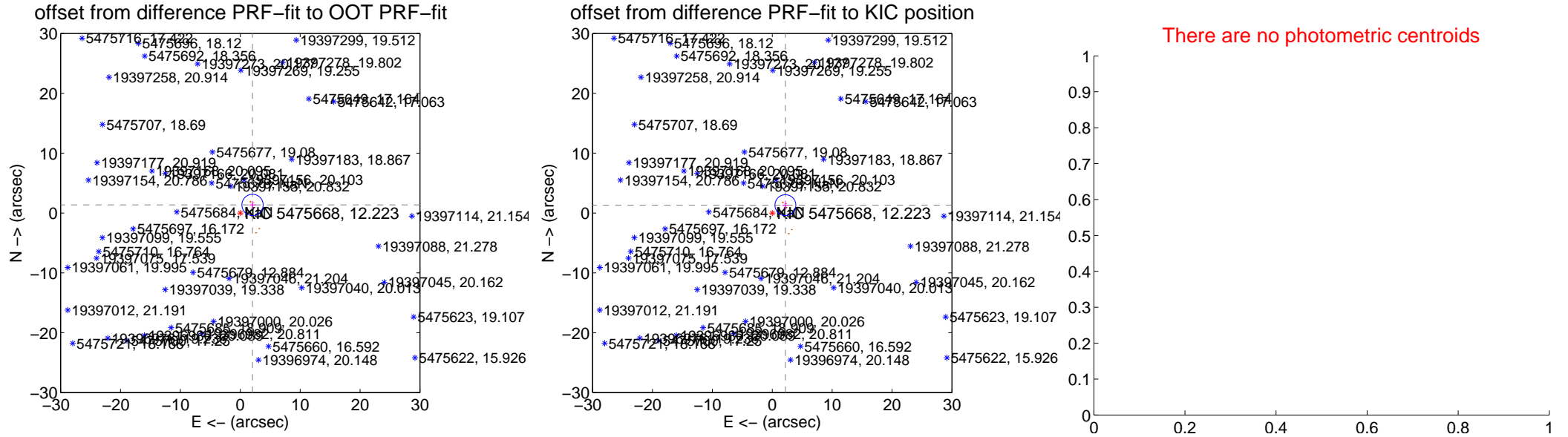
DV Centroid Data

Supplemental centroid analysis for 005475668-01. Kepler magnitude: 12.22. Transit SNR 4.43

There are 0 quarters with good PRF difference image offsets

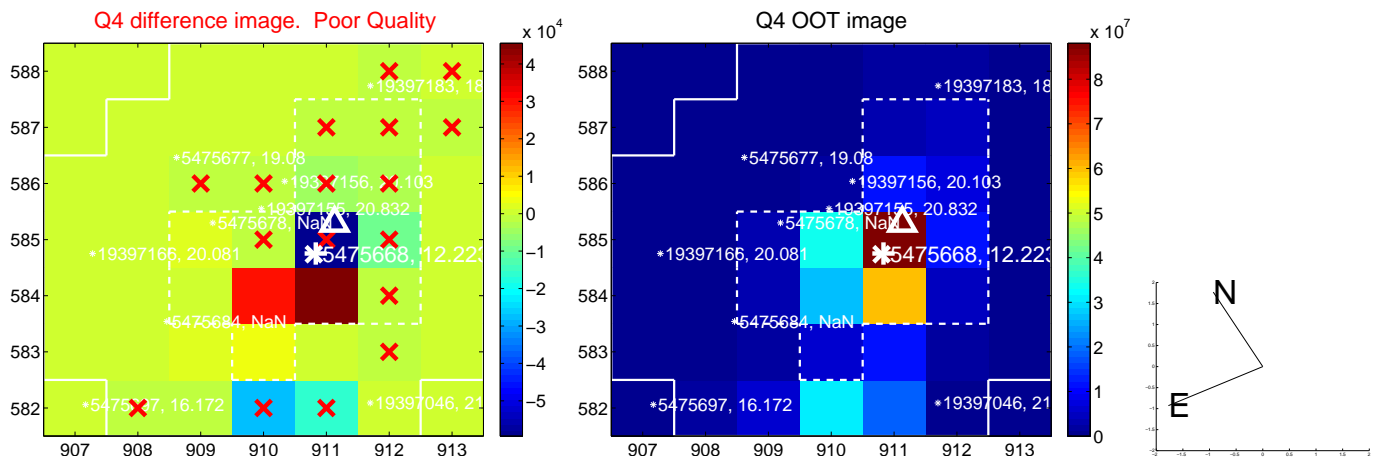
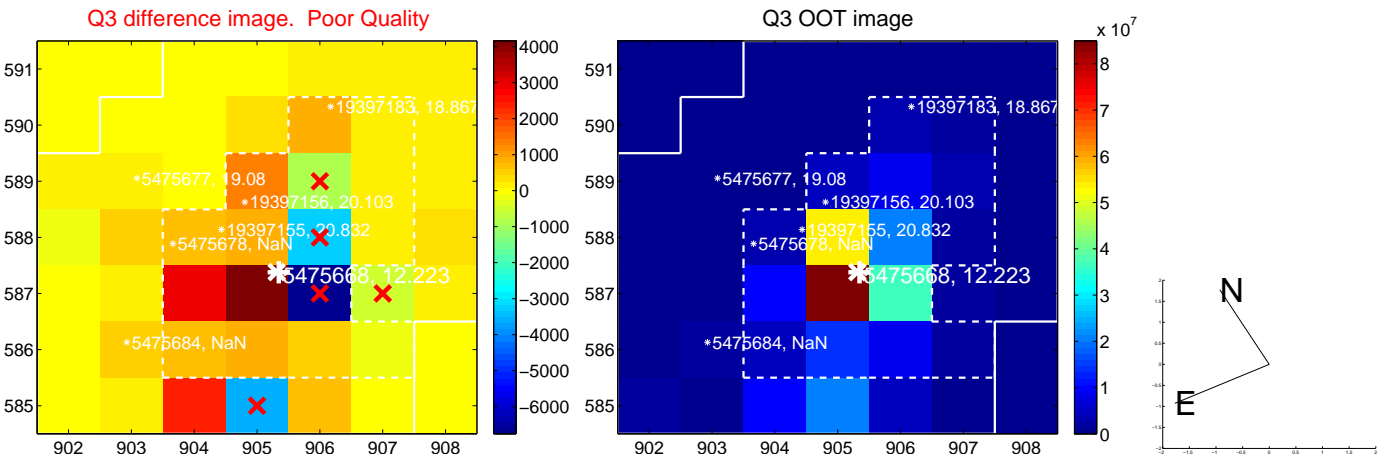
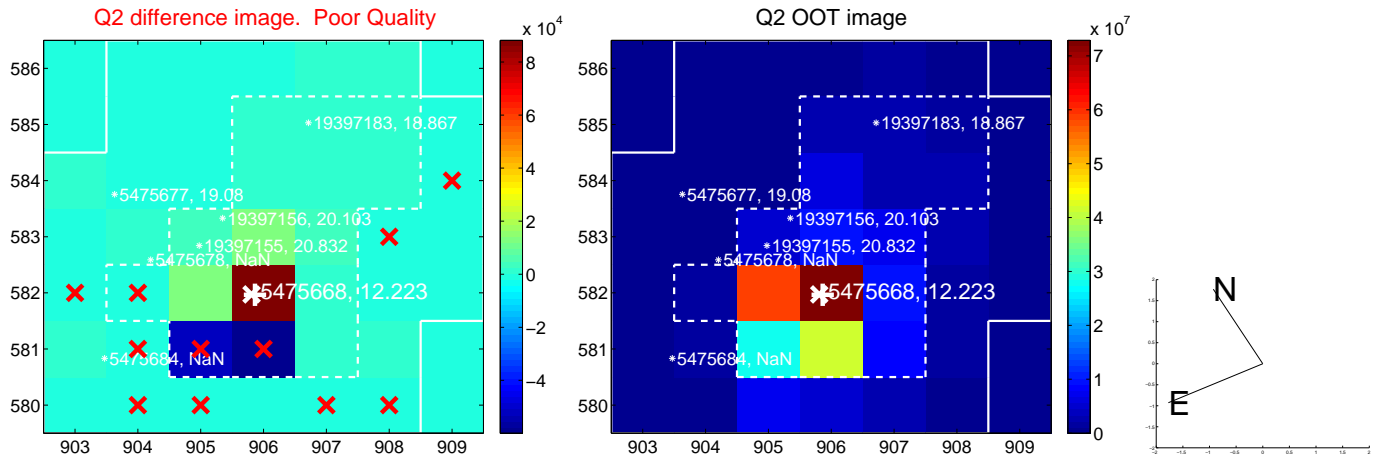
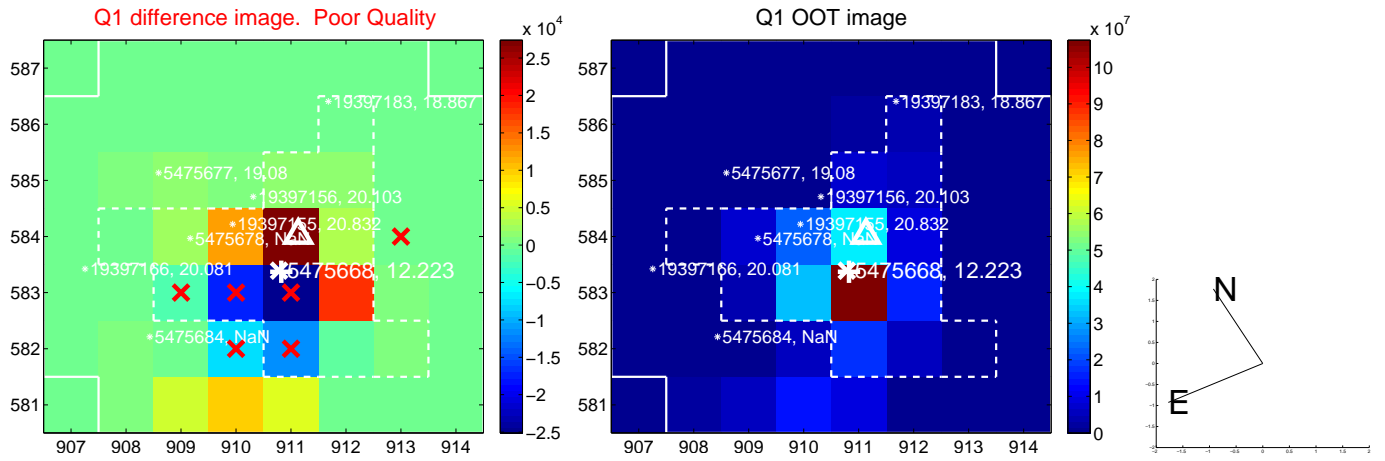
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.451 \pm 0.592	4.14	-2.043 \pm 0.533	1.354 \pm 0.669
PRF-fit source offset from KIC position	2.558 \pm 0.581	4.40	-2.195 \pm 0.513	1.315 \pm 0.746
photometric centroid source offset	—	—	—	—

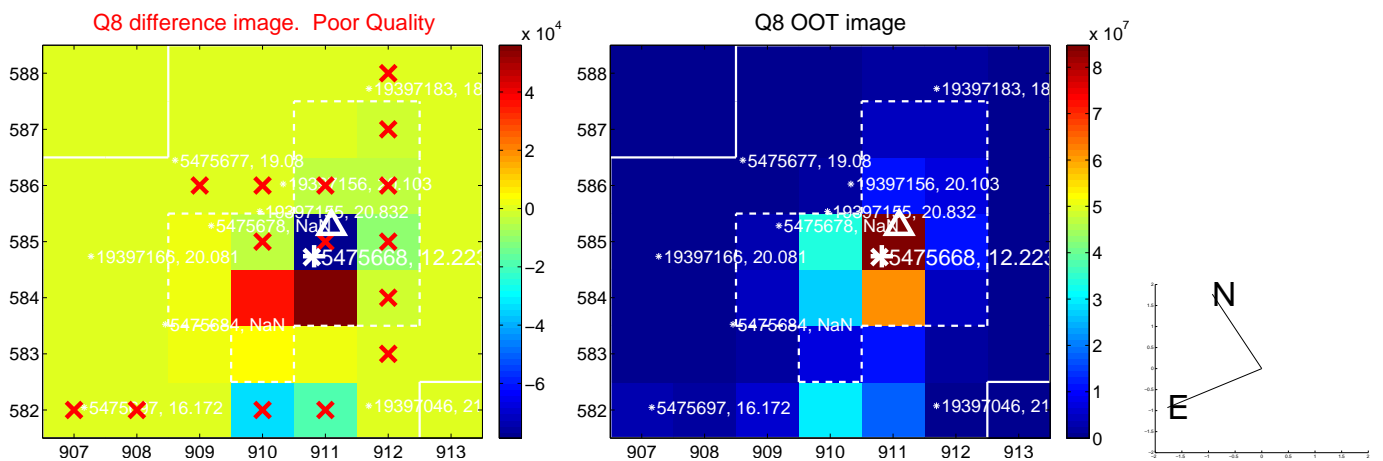
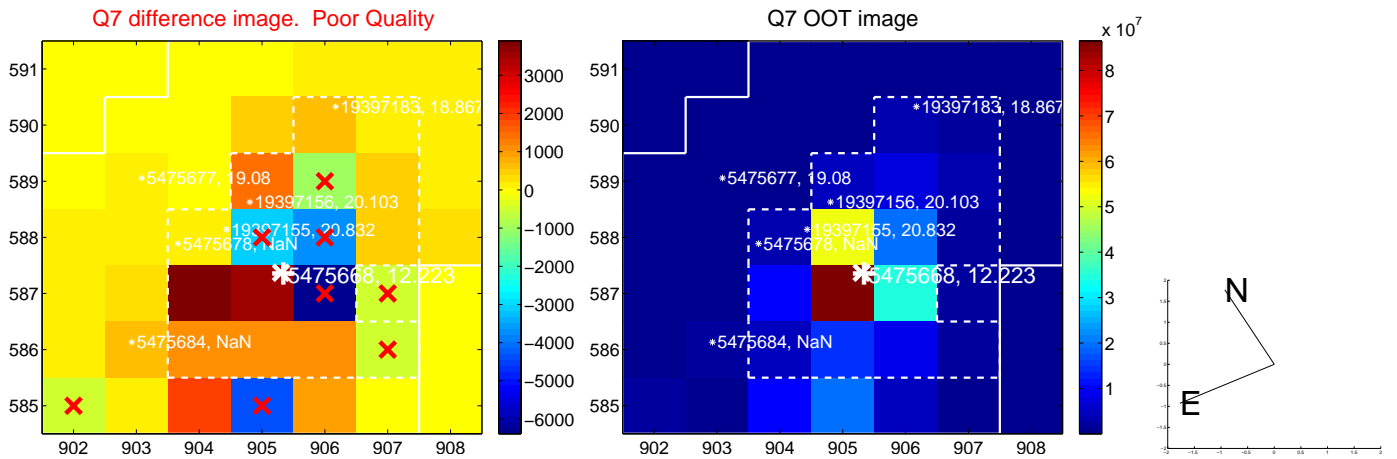
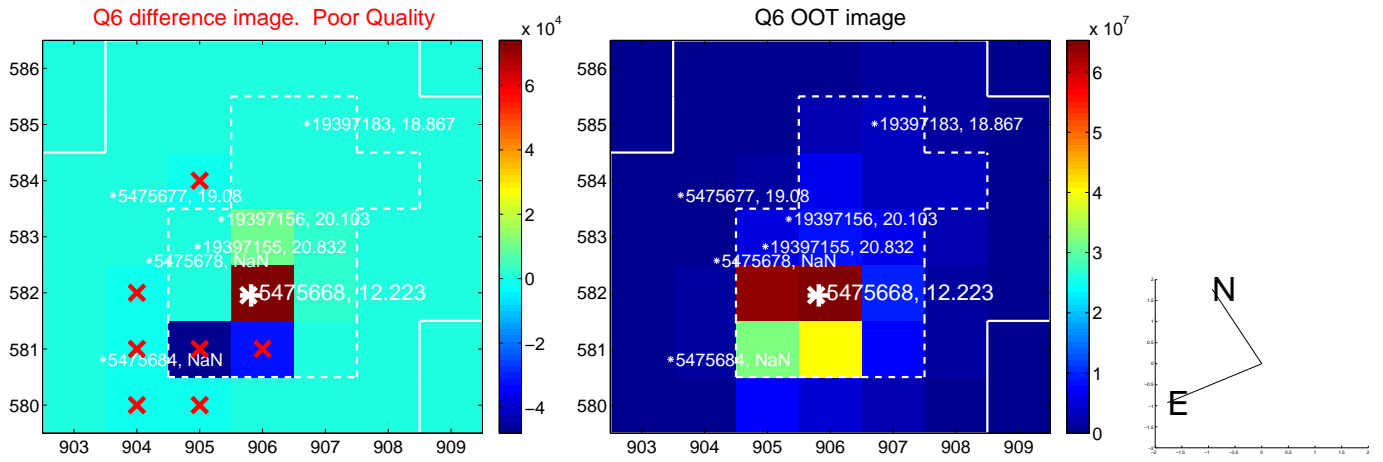
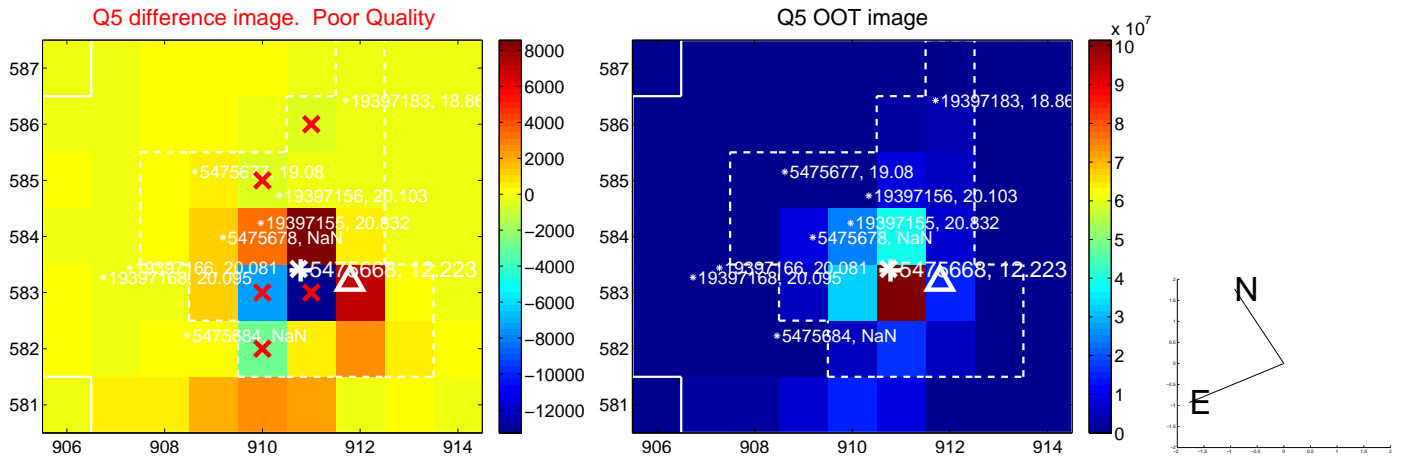


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

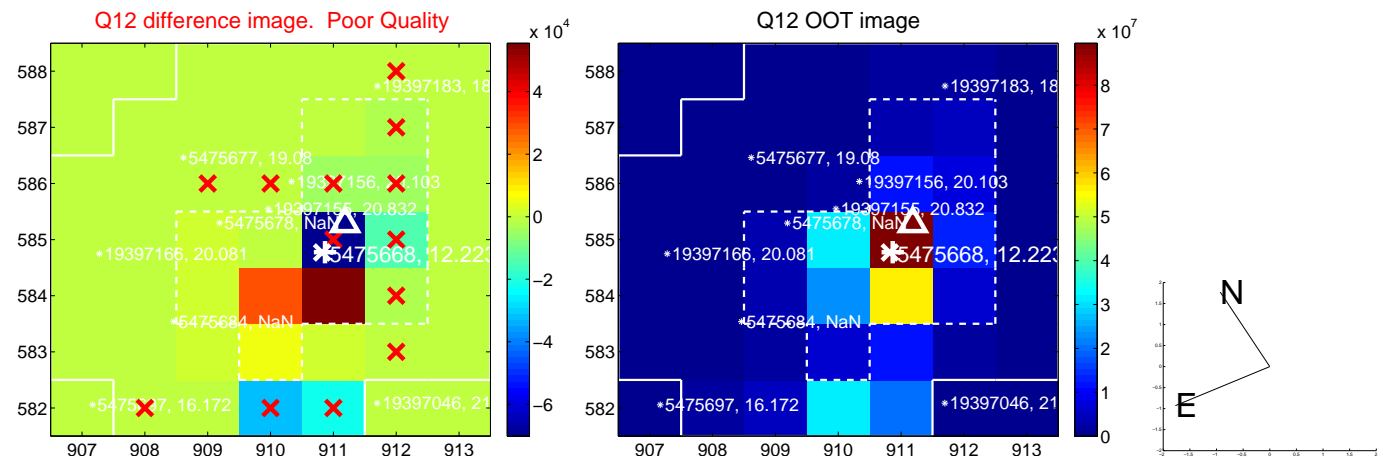
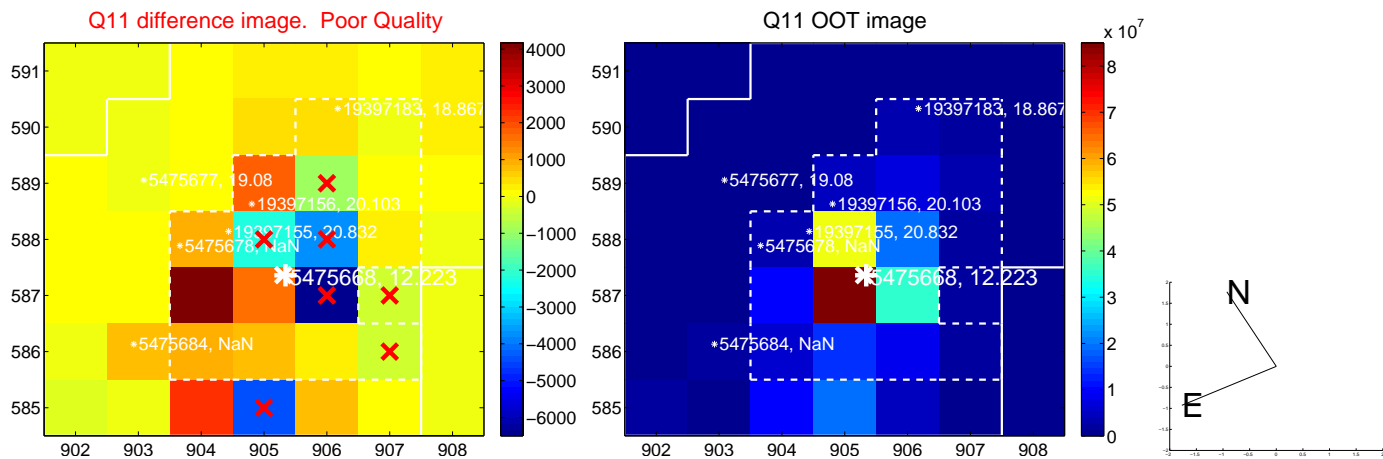
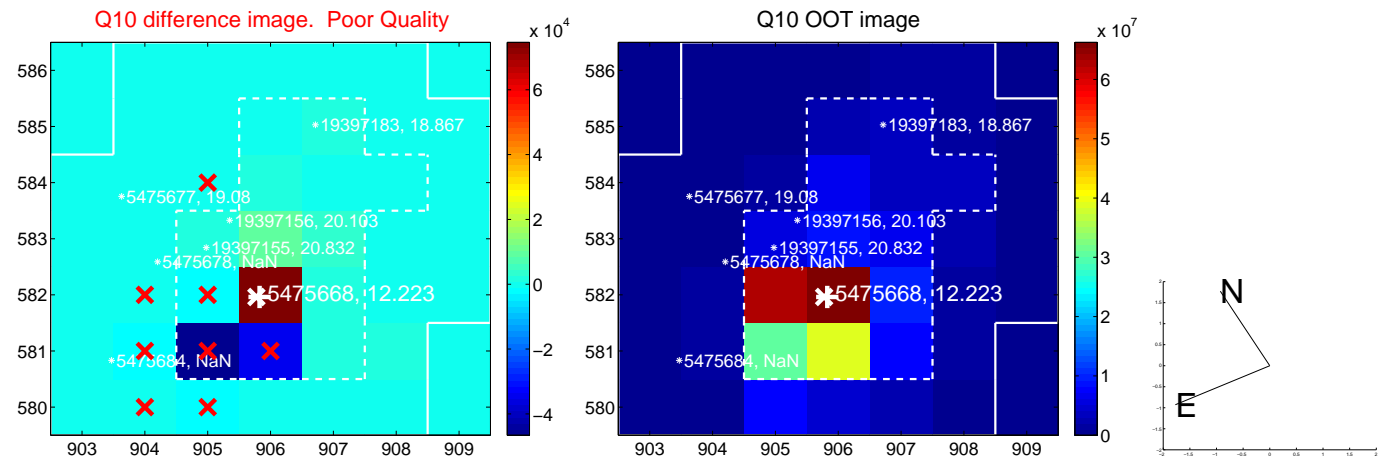
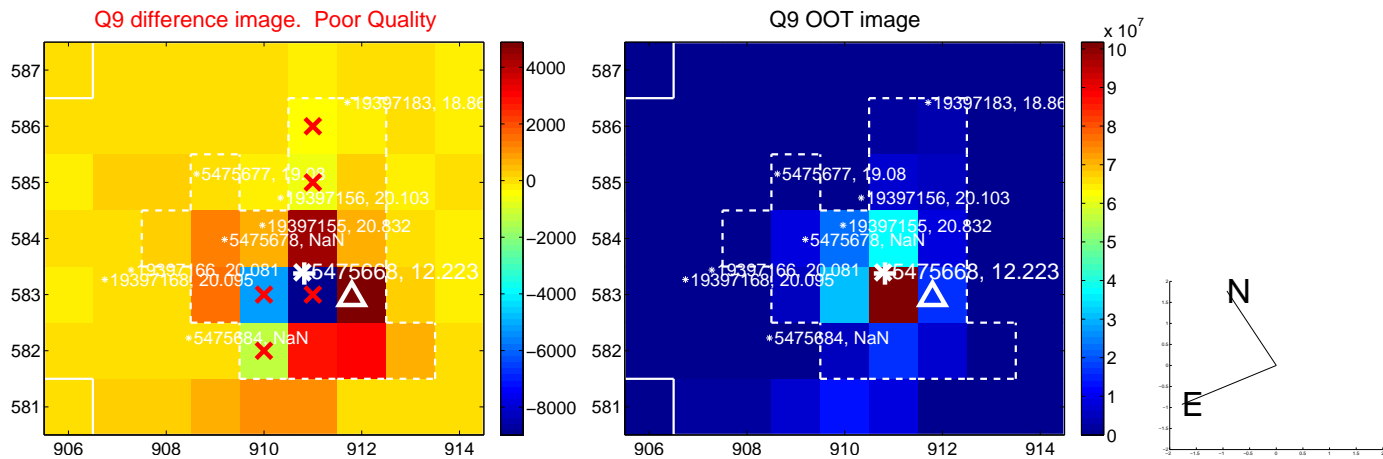
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



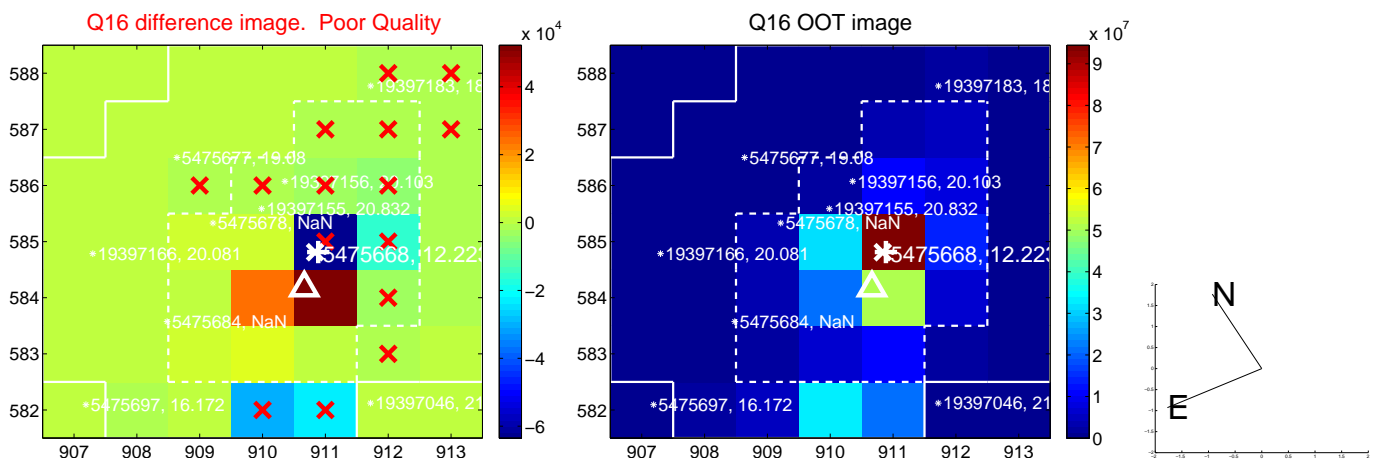
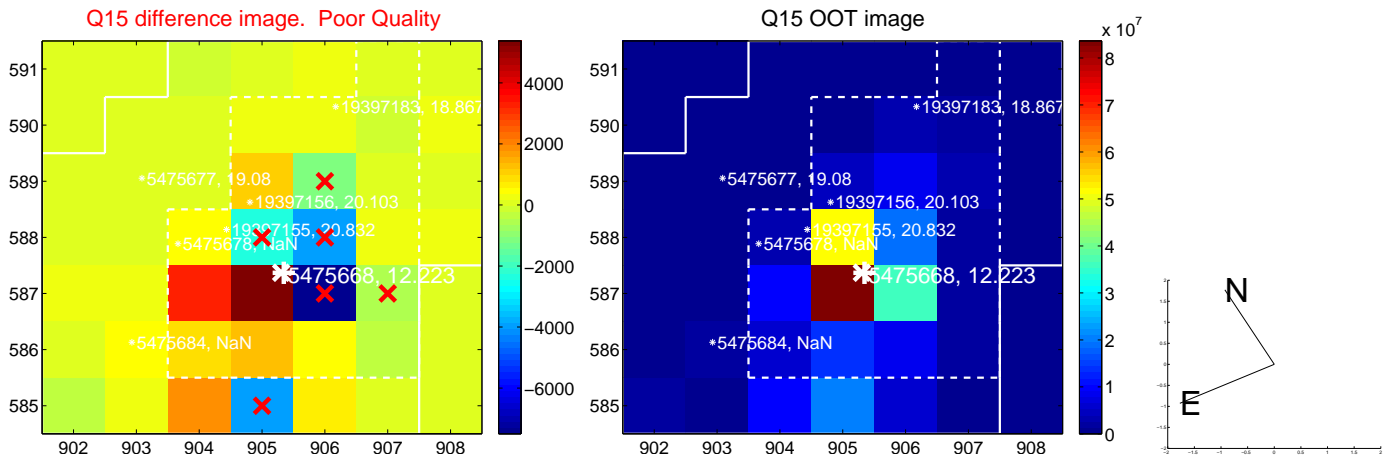
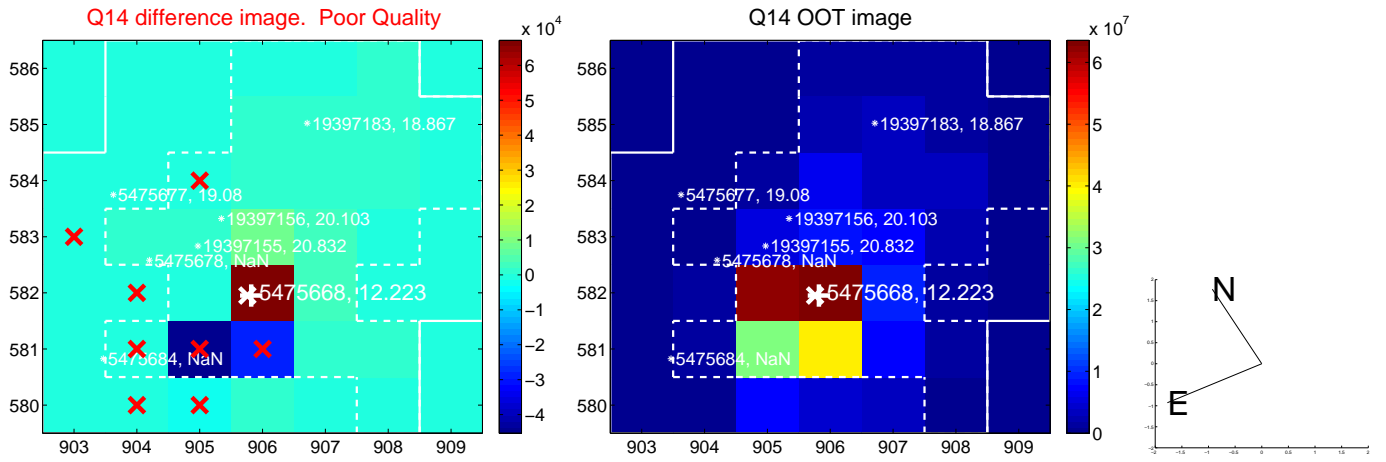
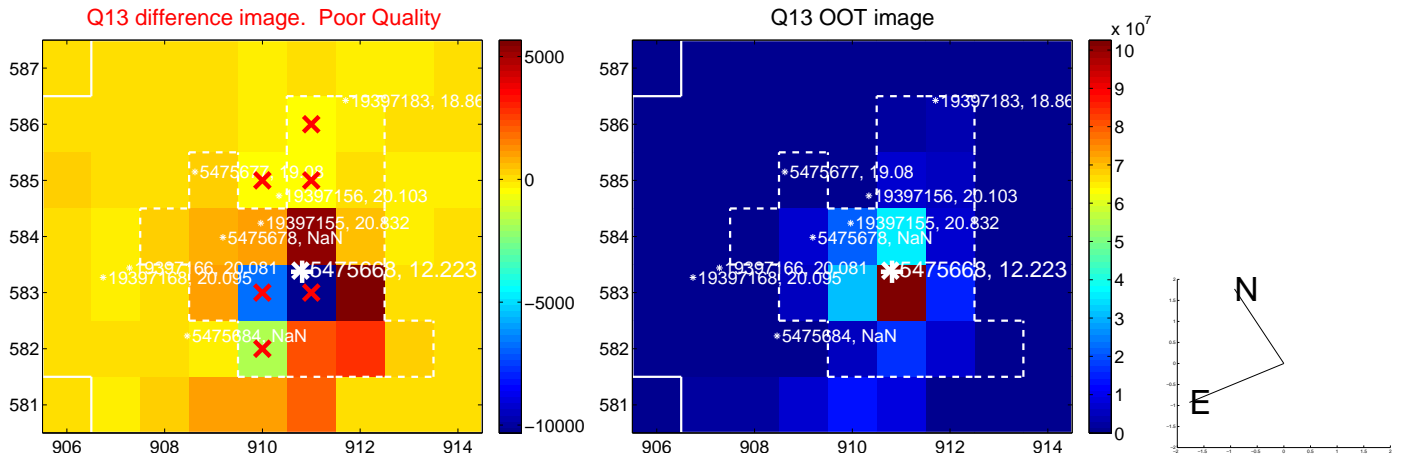
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



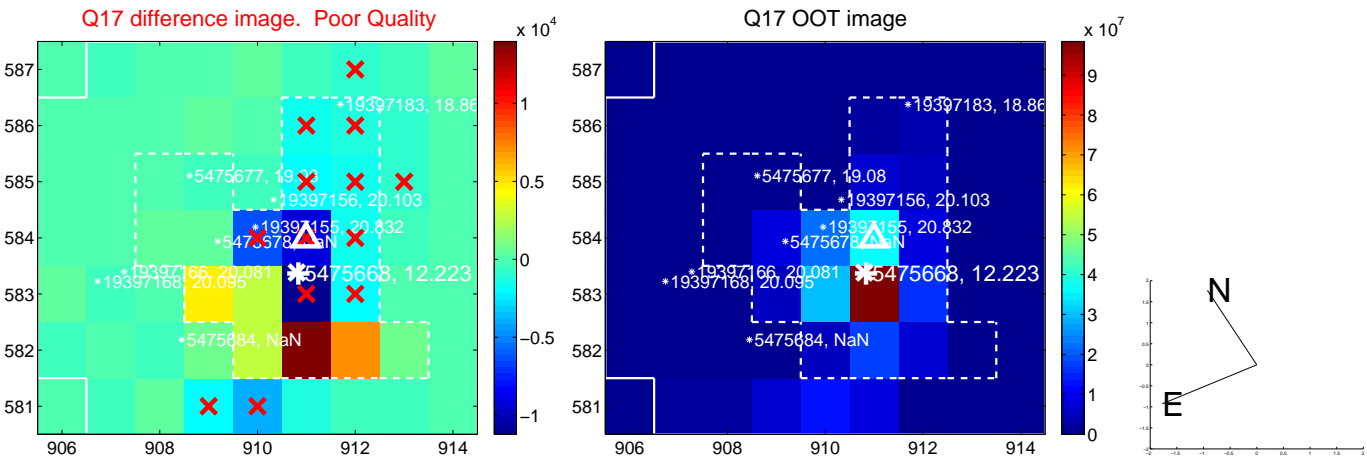
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

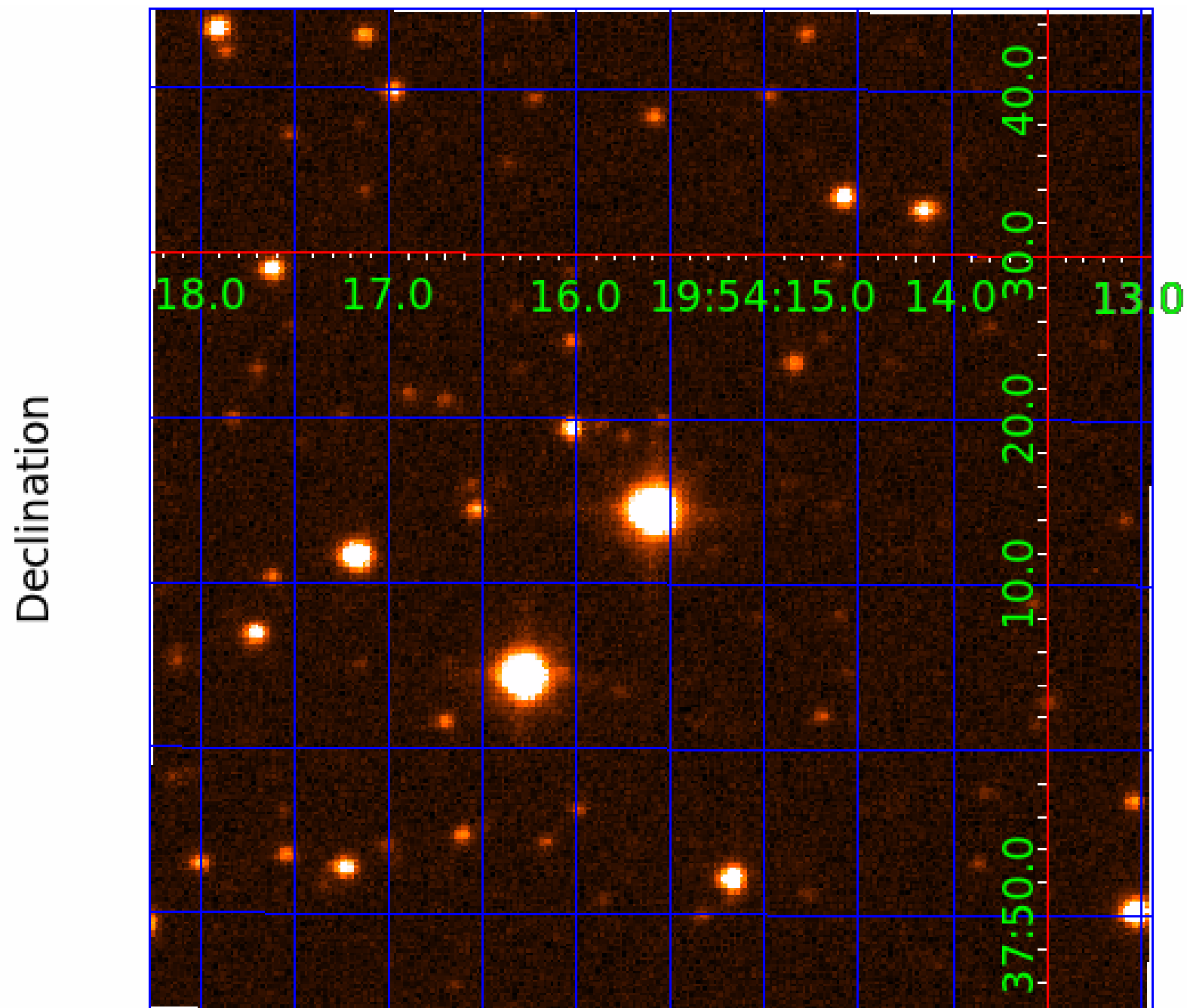


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image



KIC 005475668

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})
005475668-01	OBS	No	0.628755	132.180580	4.4	4.649	9.4	4.4	2.01	8211	0.43	54751.94
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005475668-03	OBS	No	17.179508	134.861136	202.2	0.982	12.6	14.4	2.01	8211	3.10	665.31
005475668-04	OBS	No	16.794083	134.128818	131.7	1.375	12.3	9.3	2.01	8211	2.60	685.75
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005475668-07	OBS	No	6.968977	137.476932	180.3	0.705	8.1	13.1	2.01	8211	2.85	2215.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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005475668-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

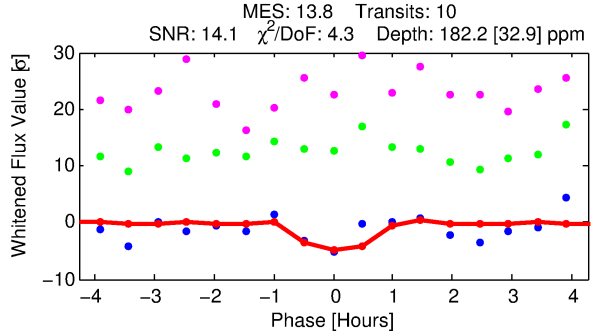
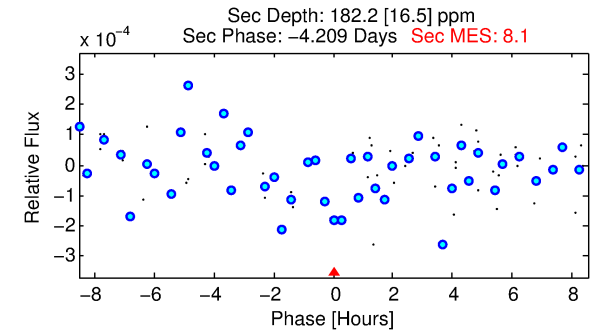
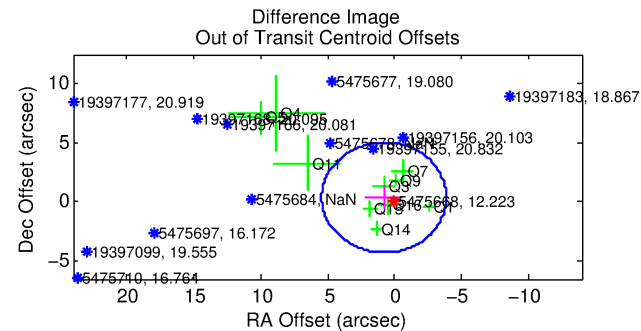
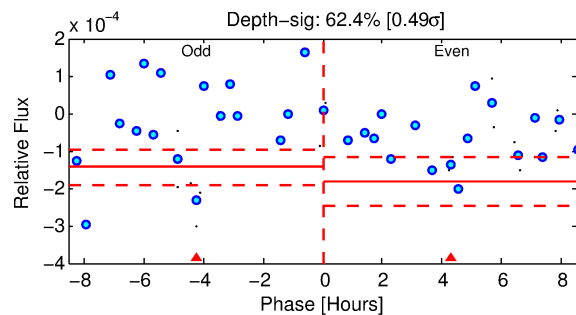
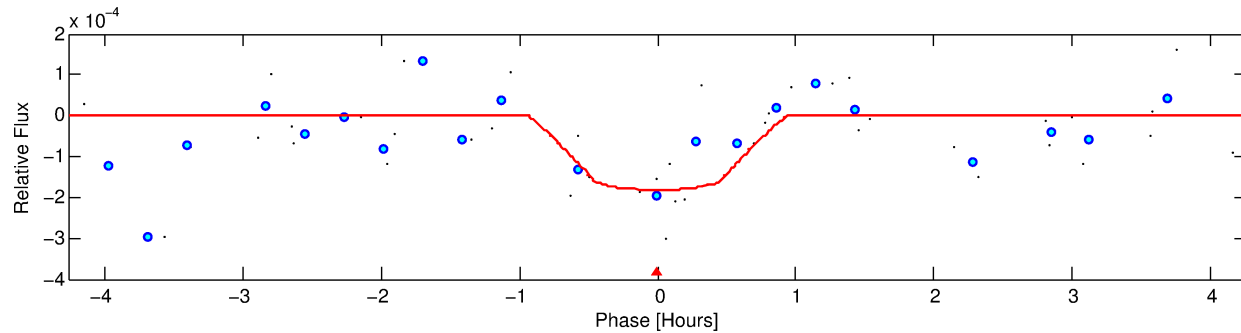
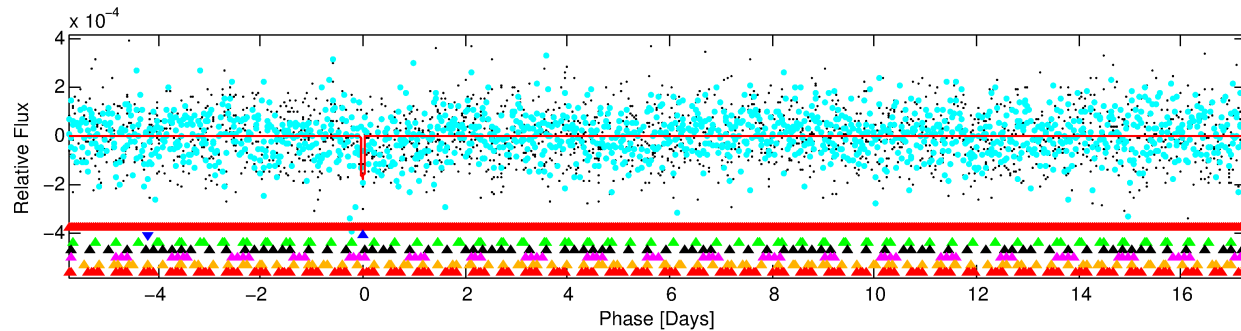
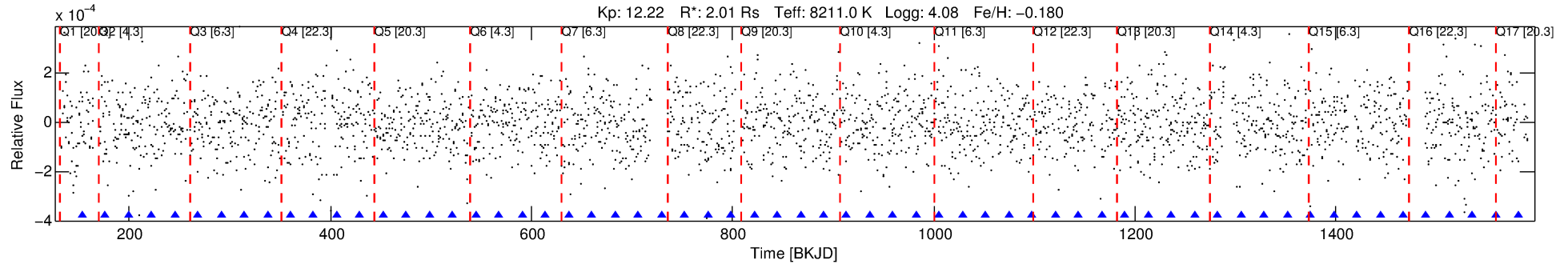
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475668-02

No Significant Match Found

DV One-Page Summary

KIC: 5475668 Candidate: 2 of 7 Period: 23.047 d



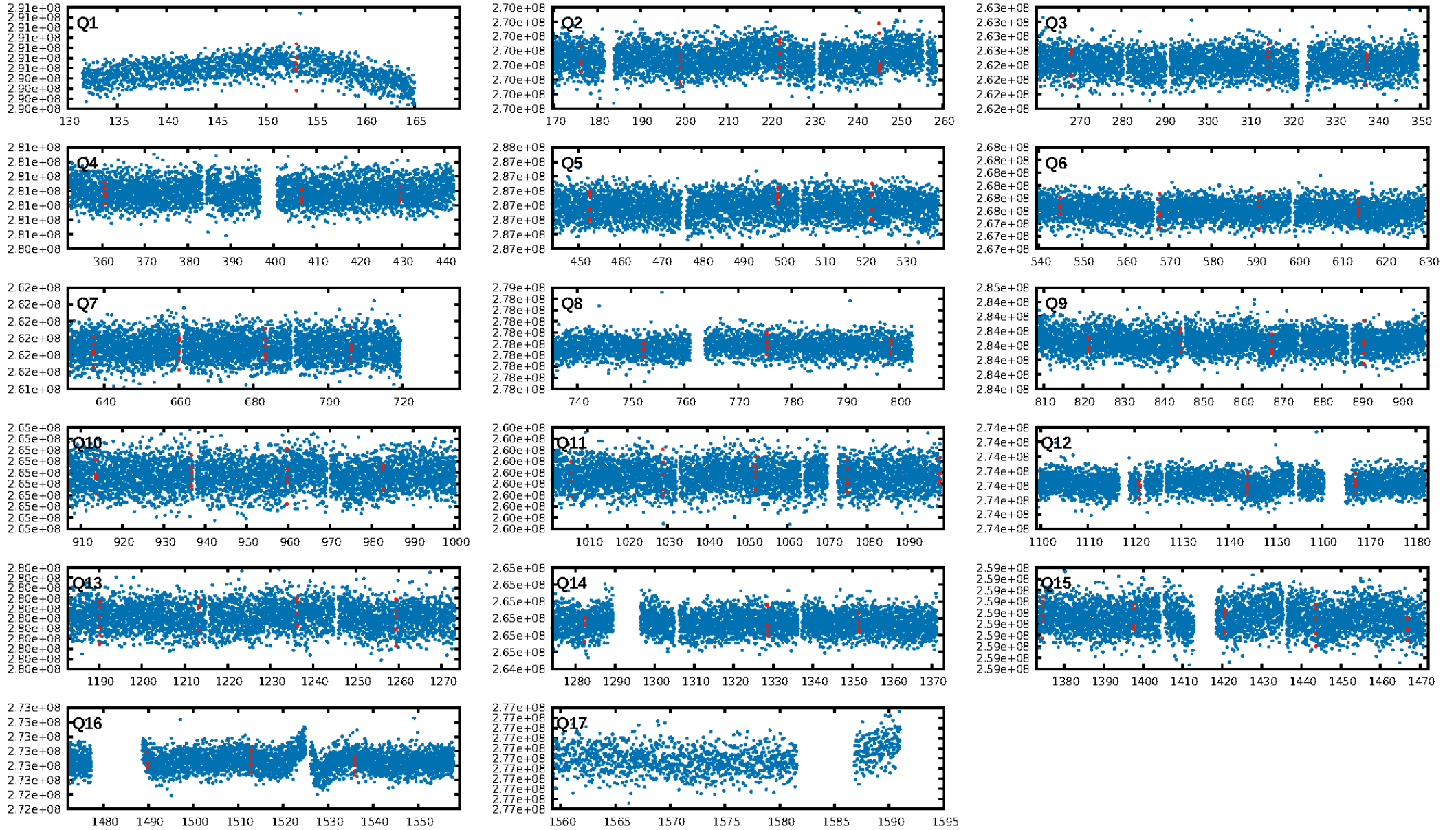
DV Fit Results:

Period = 23.04683 [0.00049] d
Epoch = 153.0538 [0.0220] BKJD
Rp/R* = 0.0130 [0.0359]
a/R* = 103.53 [1675.17]
b = 0.57 [19.20]
Seff = 449.67 [152.49]
Teq = 1174 [100] K
Rp = 2.85 [7.91] Re
a = 0.1916 [0.0380] AU
Ag = 452.15 [2503.11] [0.18 σ]
Teffp = 8372 [11575] K [0.62 σ]

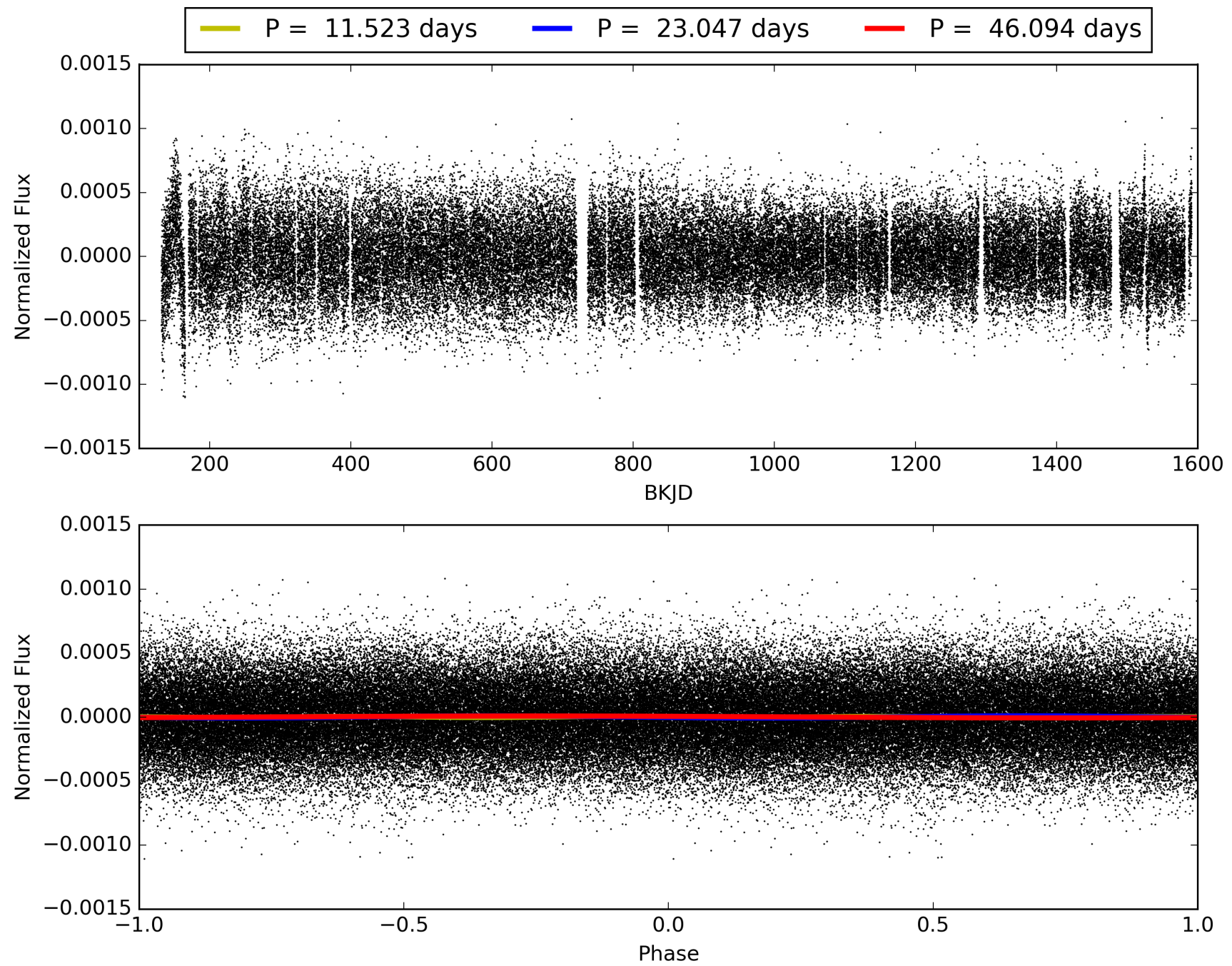
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [50.96 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.9%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 4.71e-19
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 1.667
Centroid-sig: 5.5%
Centroid-so: 1.894 arcsec [2.89 σ]
OotOffset-rm: 0.876 arcsec [0.56 σ]
OotOffset-st: 1/4/2/3 [10]
KicOffset-rm: 0.710 arcsec [0.56 σ]
KicOffset-st: 1/4/2/3 [10]
DiffImageQuality-fgm: 0.40 [4/10]
DiffImageOverlap-fno: 0.00 [0/16]

TCE 005475668-02, PDC Light Curves

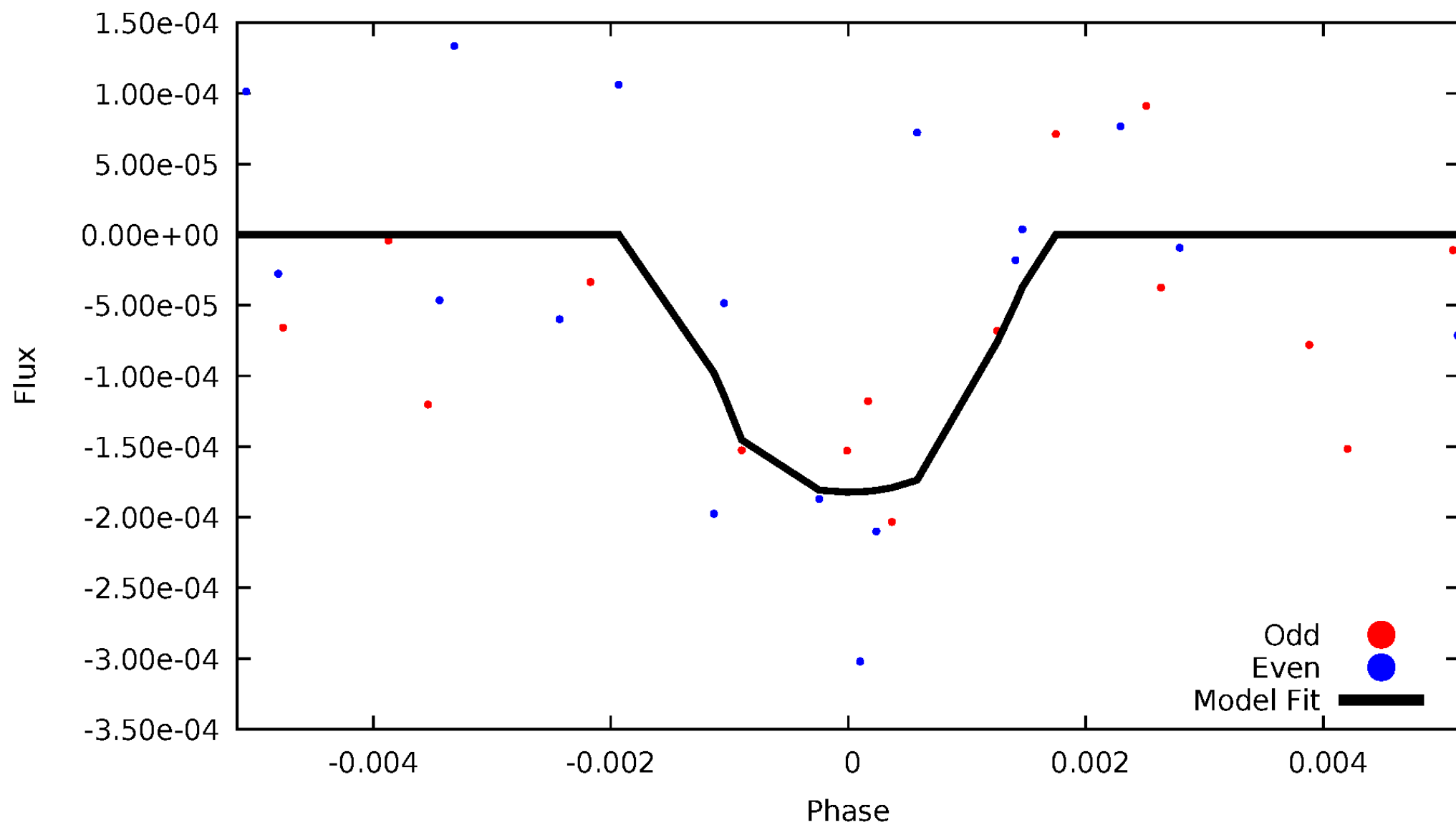


TCE 005475668-02



DV Odd/Even

TCE 005475668-02

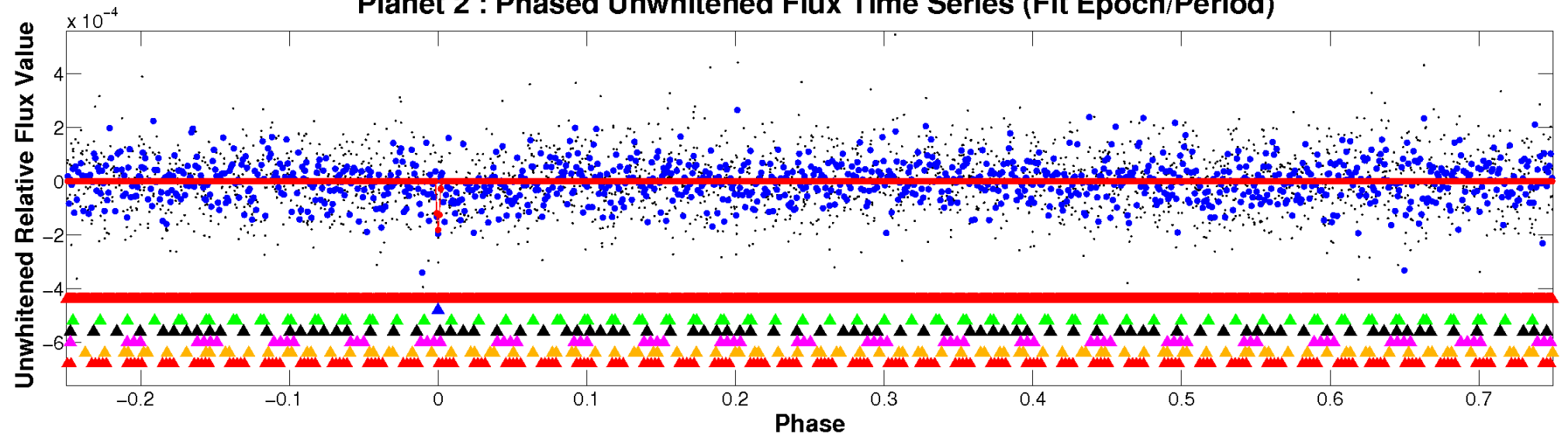


ALT Odd/Even

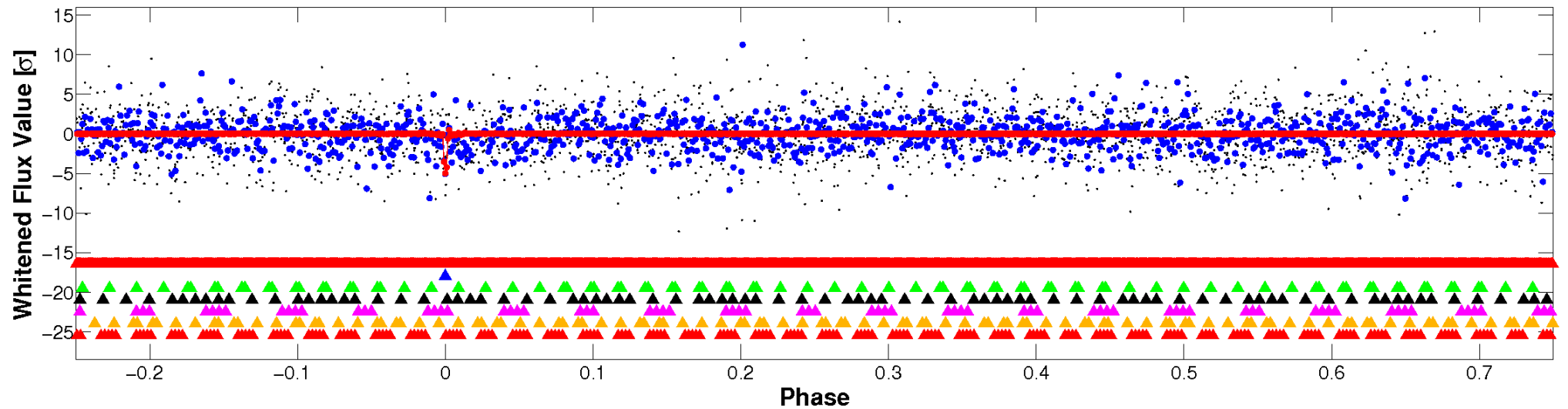
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

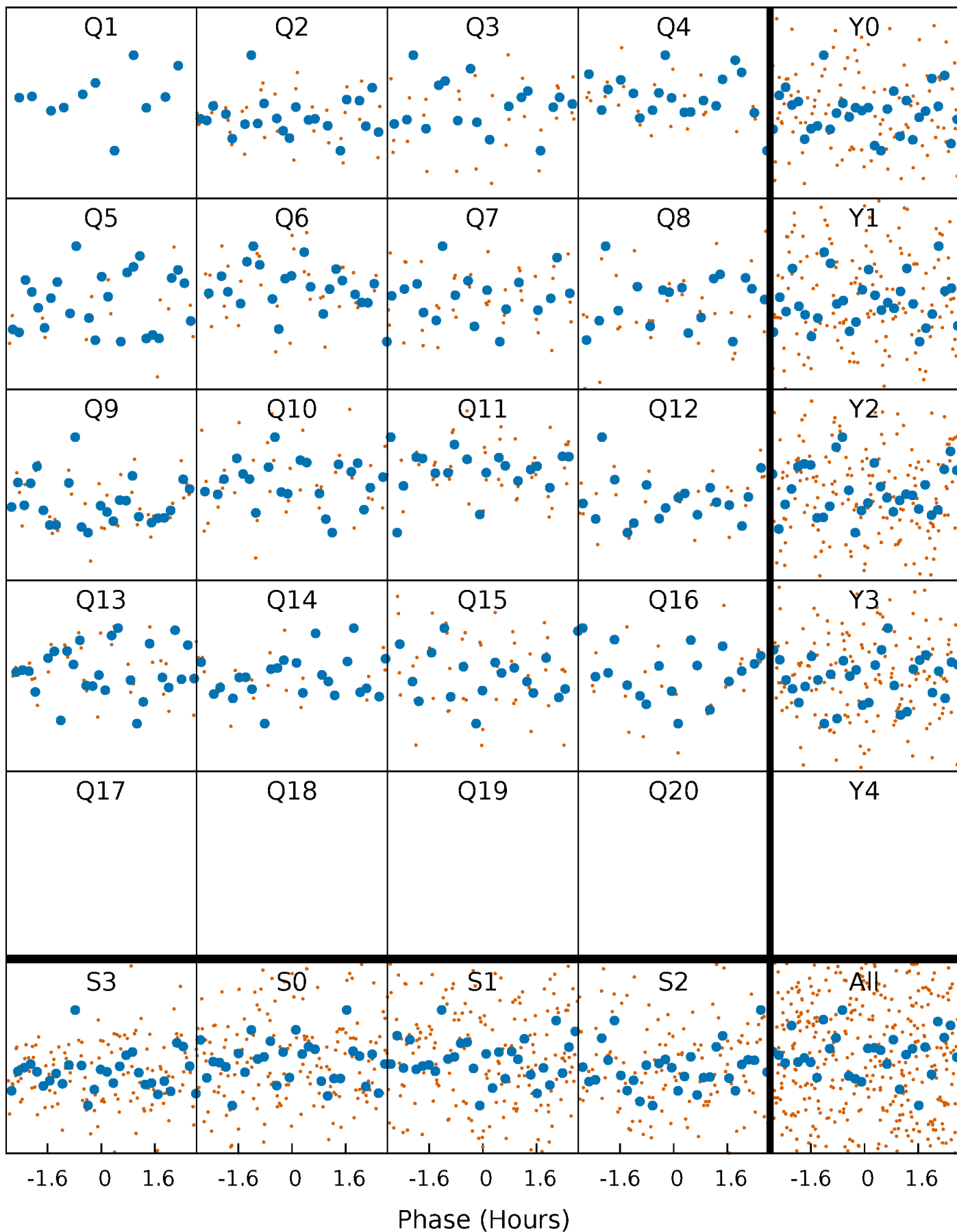


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



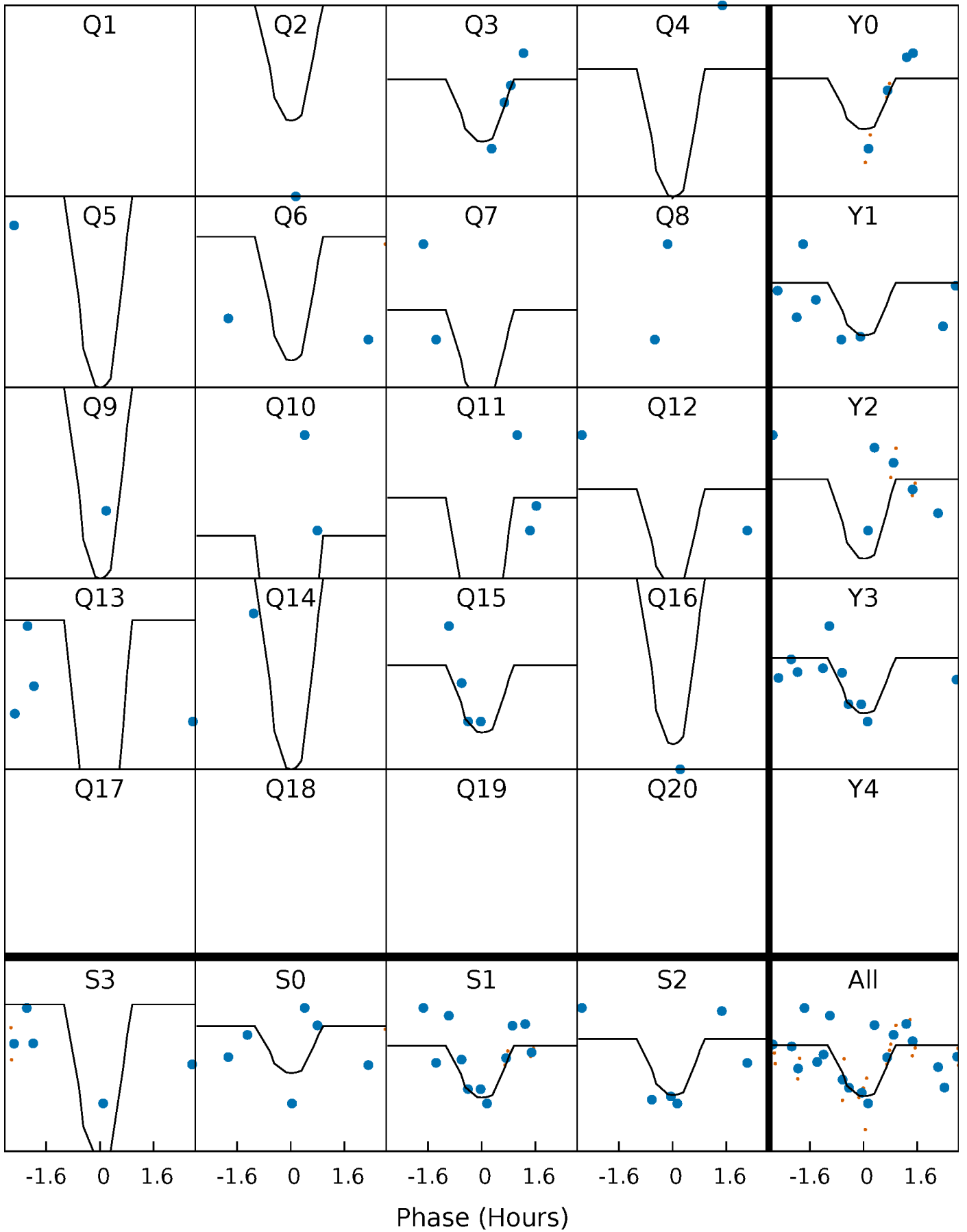
PDC Quarter-Phased Transit Curves

TCE 005475668-02 P= 23.046835 Days $T_0=153.053781$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005475668-02 P= 23.046835 Days $T_0=153.053781$ (BKJD)

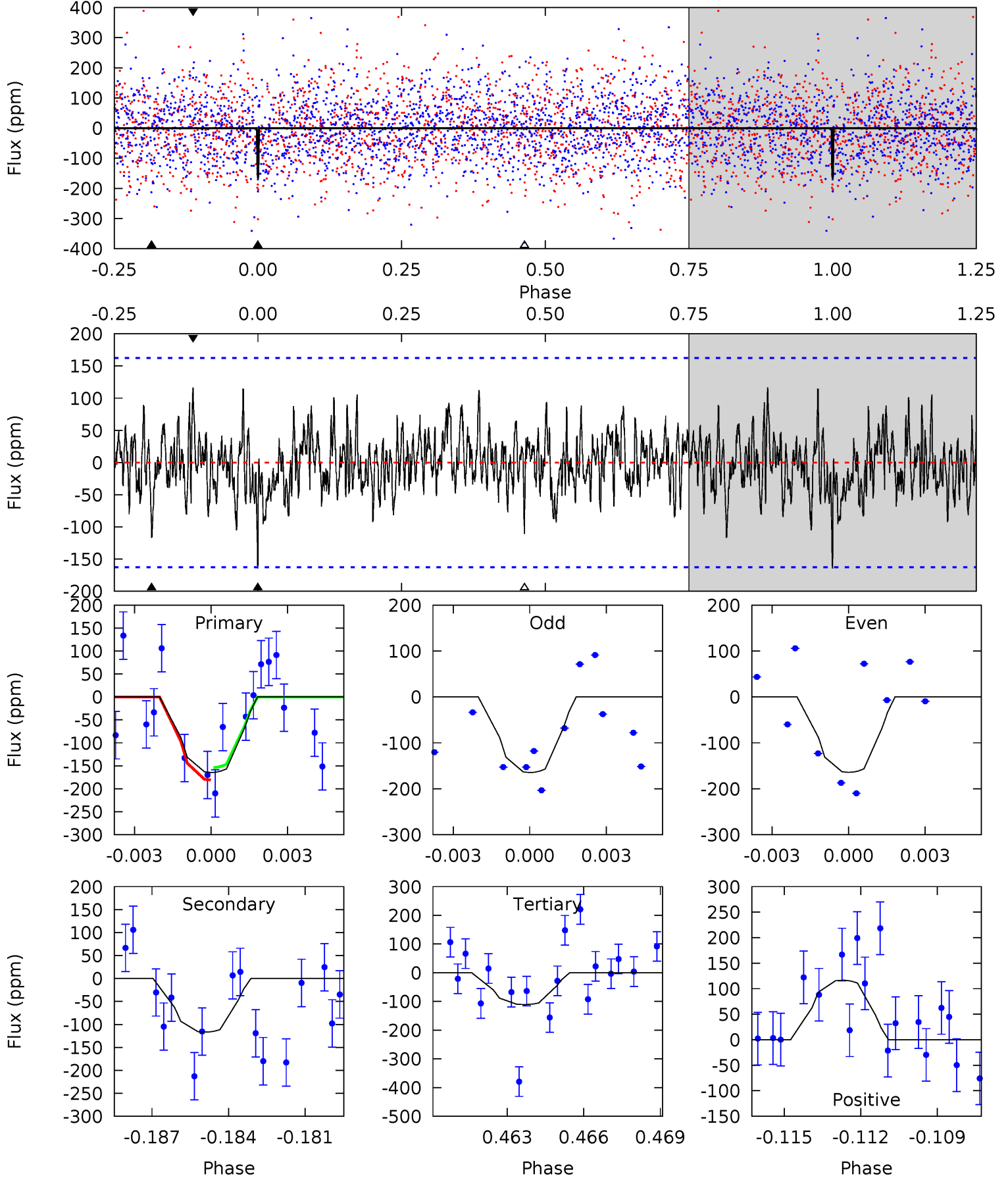


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005475668-02, P = 23.046835 Days, E = 130.006946 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.32	3.78	3.58	3.77	5.26	2.98	1.23	1.74	1.55	0.20	0.01	0.01	0.71	0.41	0.41



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005475668

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8211^{+226}_{-340}	$4.077^{+0.165}_{-0.150}$	$-0.180^{+0.250}_{-0.300}$	$2.013^{+0.462}_{-0.462}$	$1.763^{+0.146}_{-0.271}$	$0.304^{+0.266}_{-0.122}$
	+3%/-4%	+4%/-4%	+139%/-167%	+23%/-23%	+8%/-15%	+87%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005475668-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-117 ± 31	$6.67^{+6.14}_{-4.80}$	1631^{+109}_{-102}	4820^{+4405}_{-1074}	51^{+535}_{-37}
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 $A_{obs} \gg 1.0$

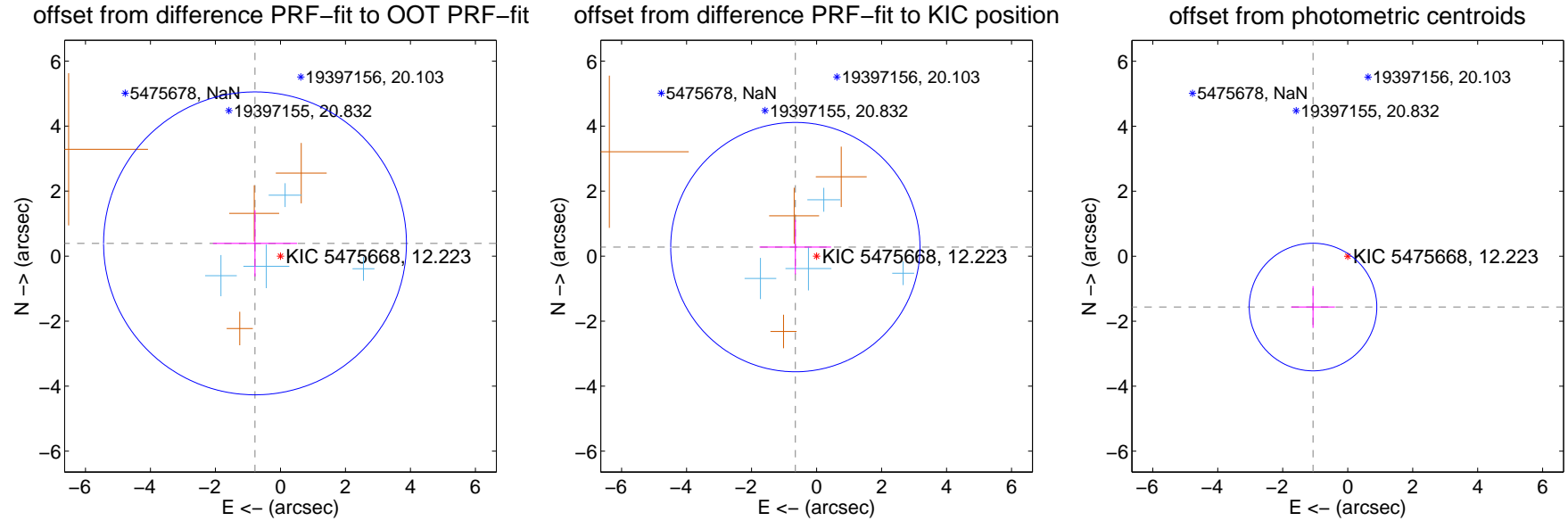
DV Centroid Data

Supplemental centroid analysis for 005475668-02. Kepler magnitude: 12.22. Transit SNR 14.12

There are 4 quarters with good PRF difference image offsets

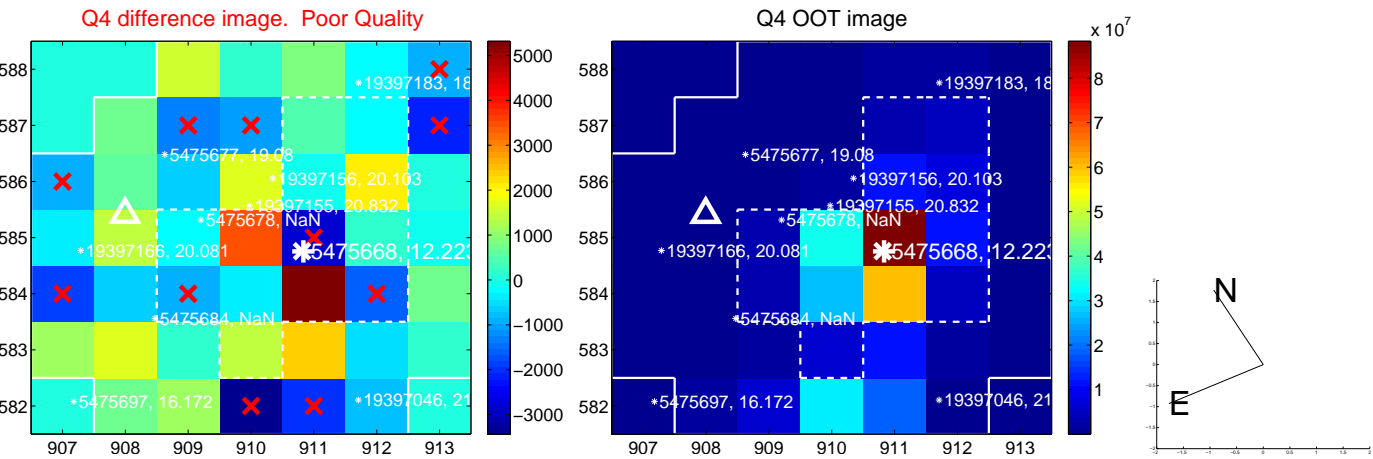
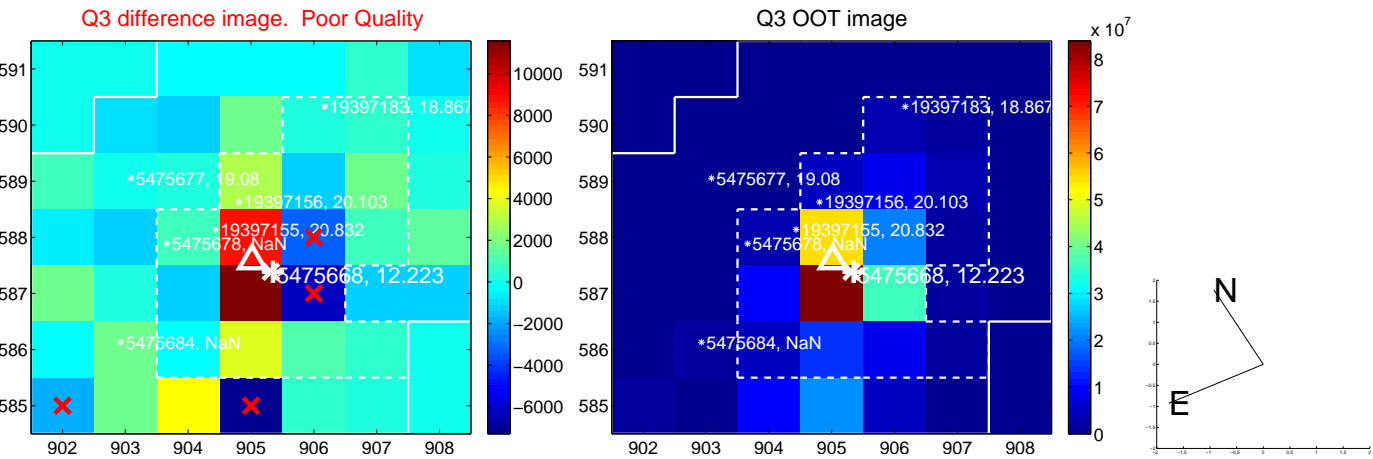
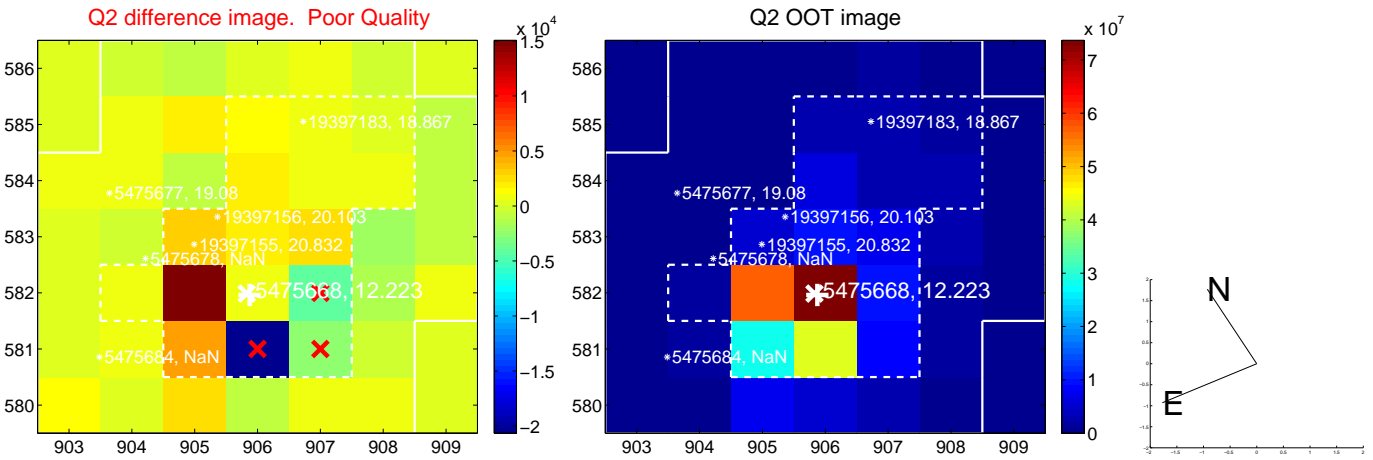
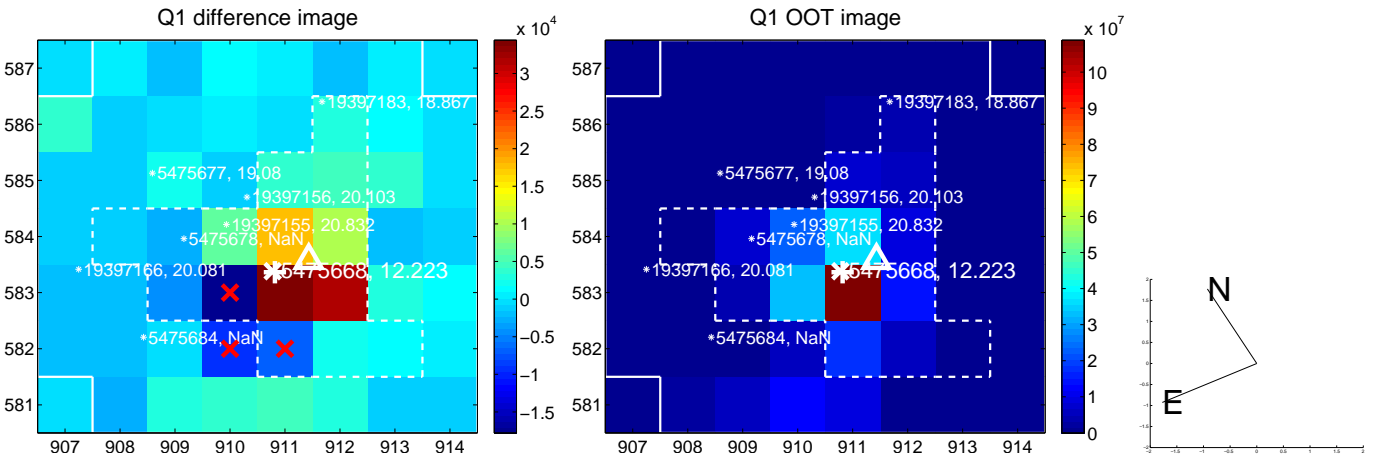
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.876 ± 1.553	0.56	0.783 ± 1.292	0.393 ± 1.021
PRF-fit source offset from KIC position	0.710 ± 1.279	0.56	0.653 ± 1.101	0.278 ± 0.840
photometric centroid source offset	1.89 ± 0.65	2.89	1.07 ± 0.68	-1.56 ± 0.64

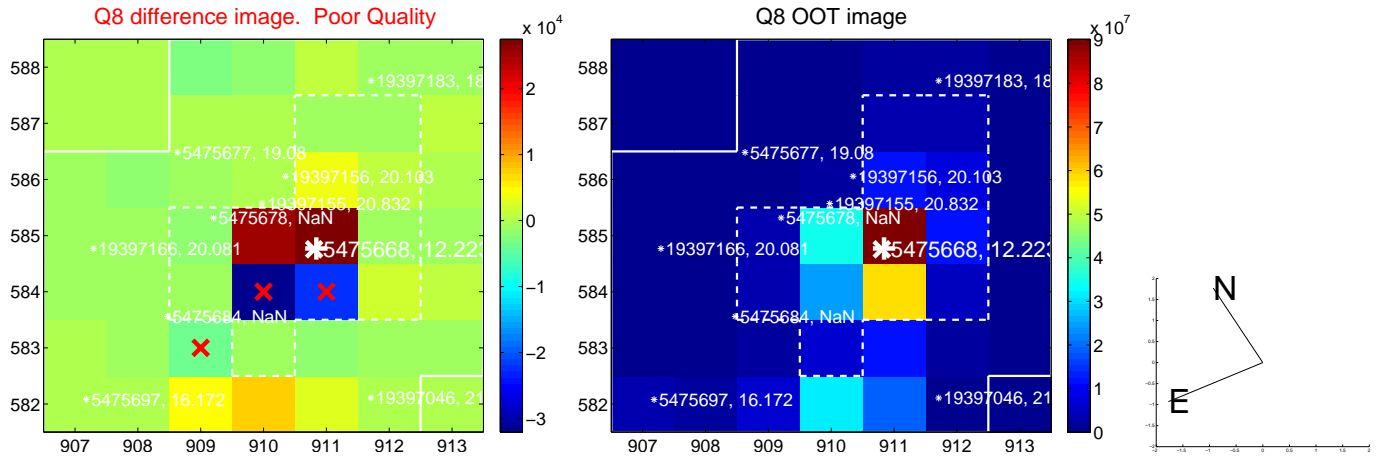
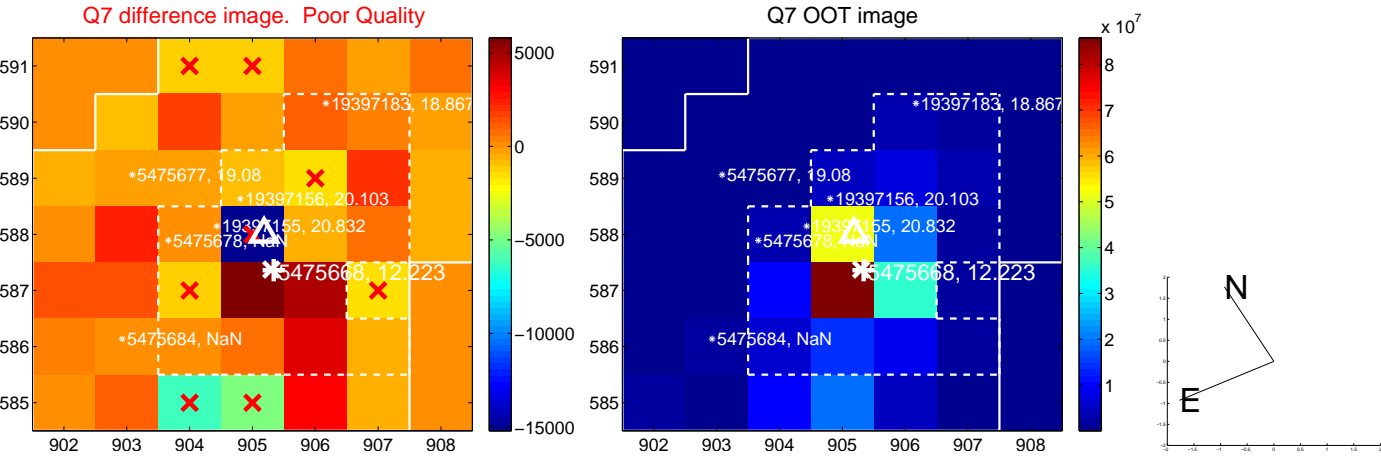
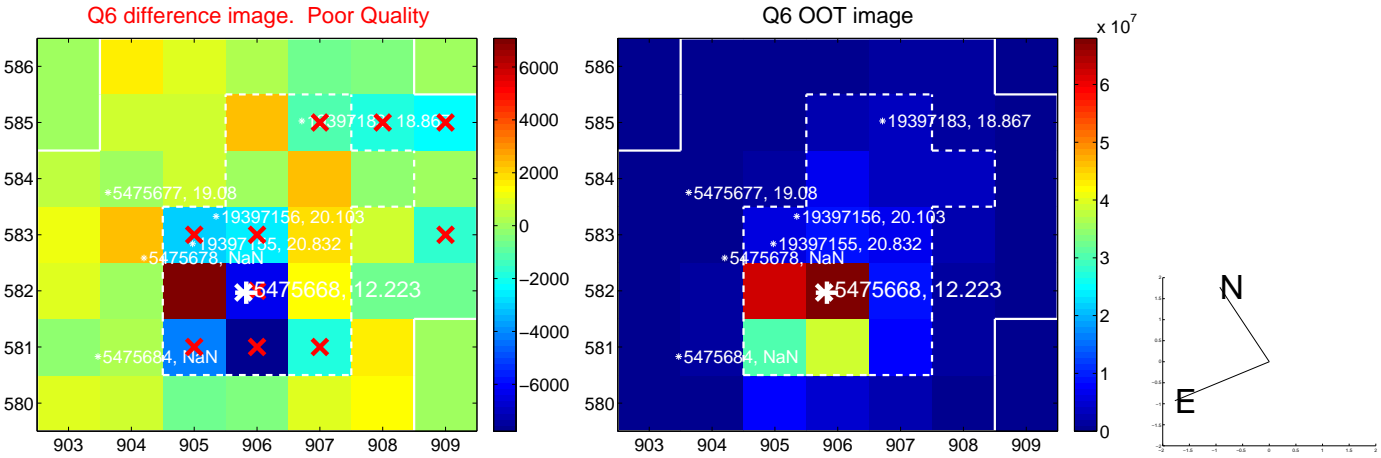
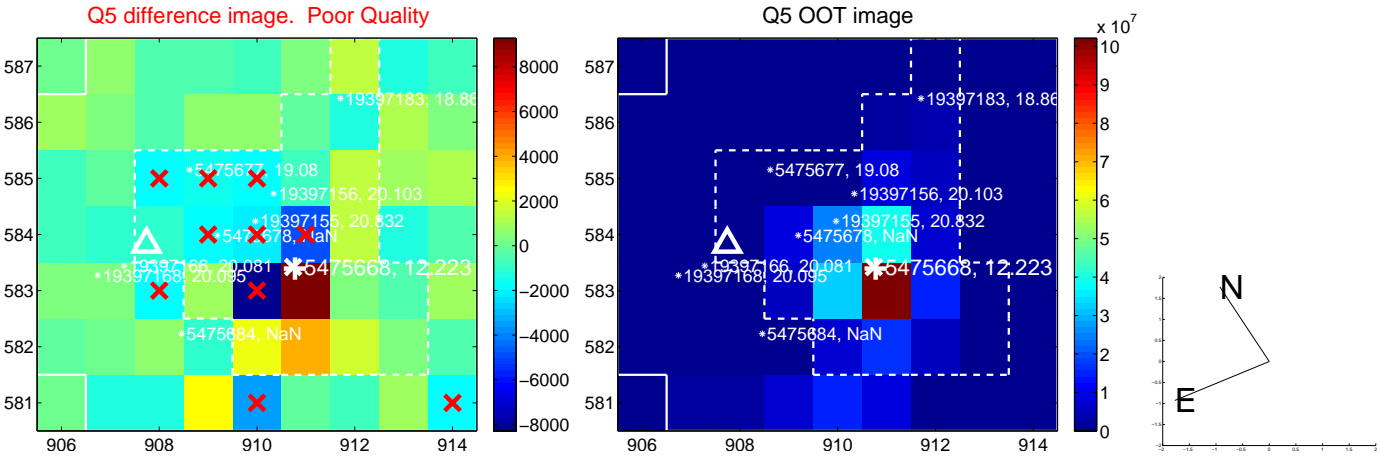


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

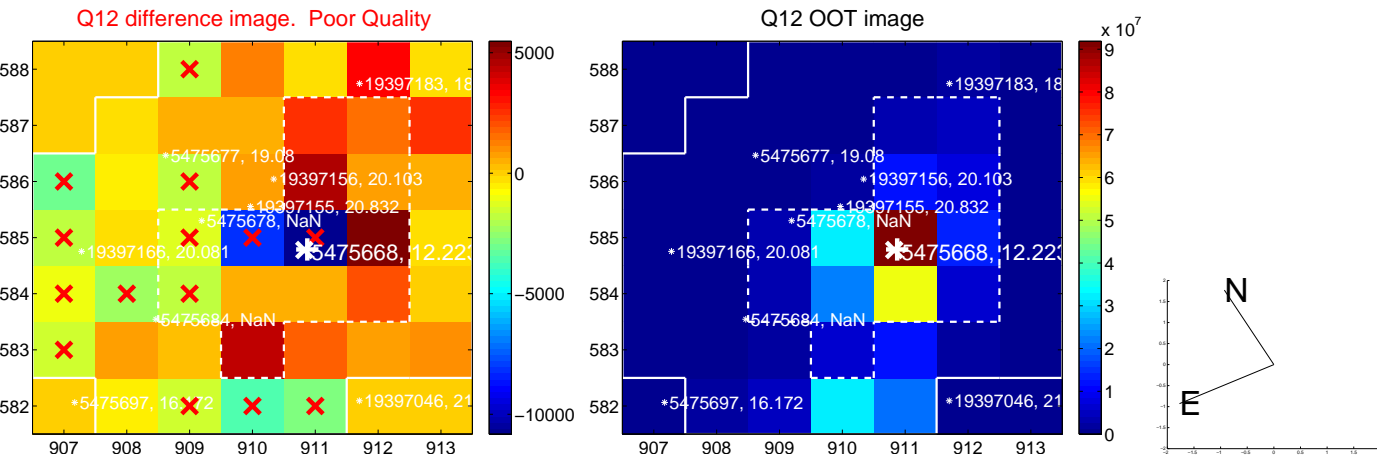
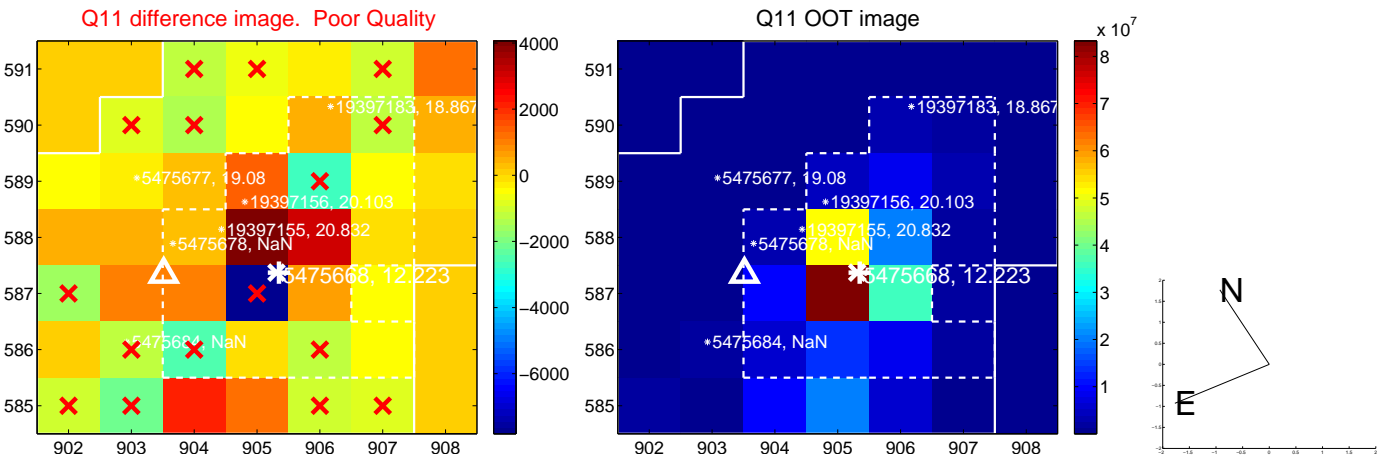
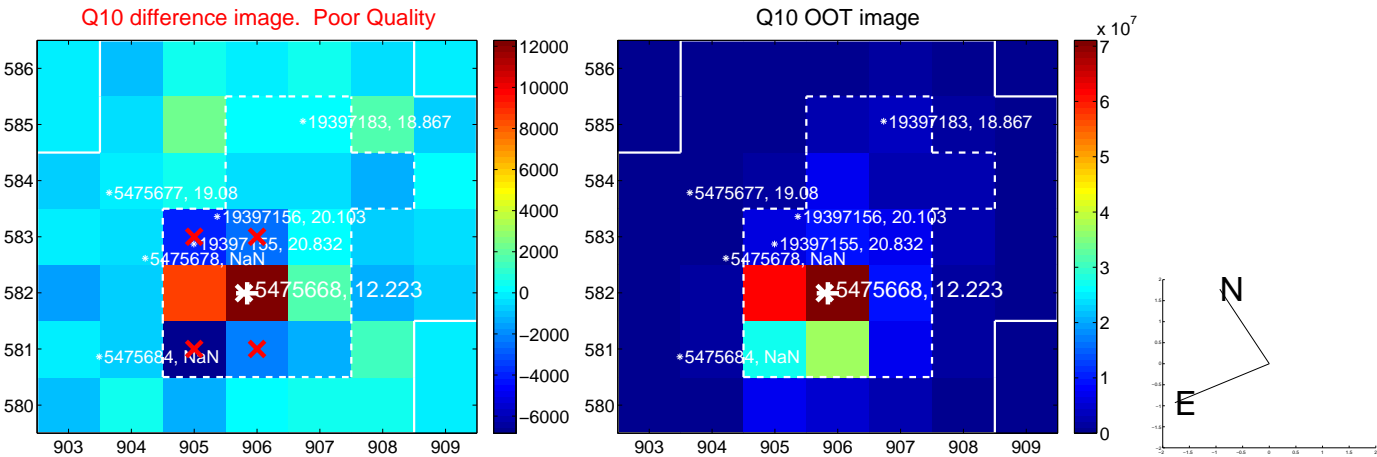
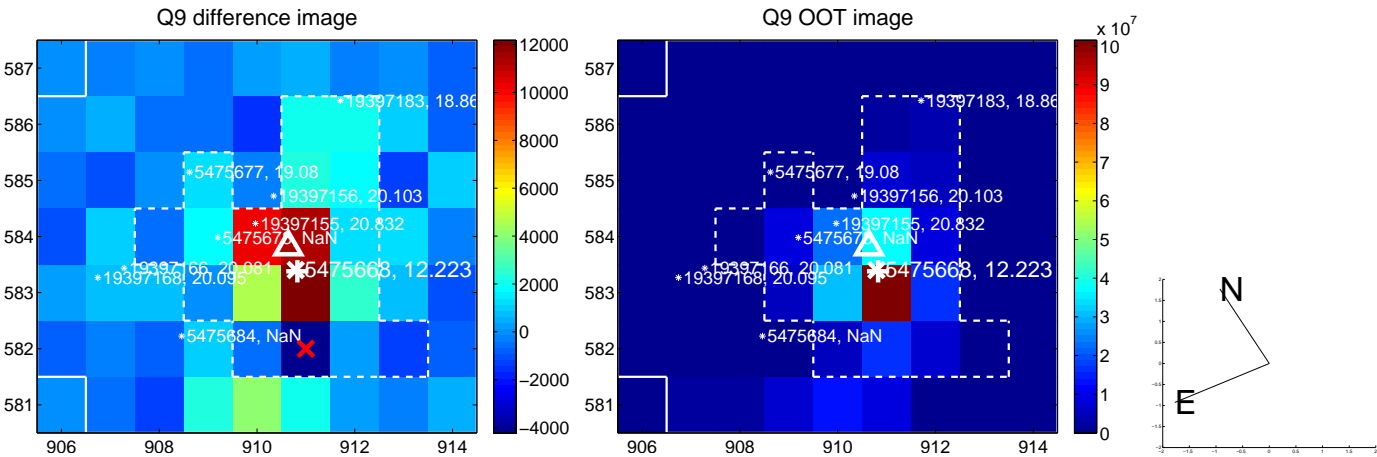
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



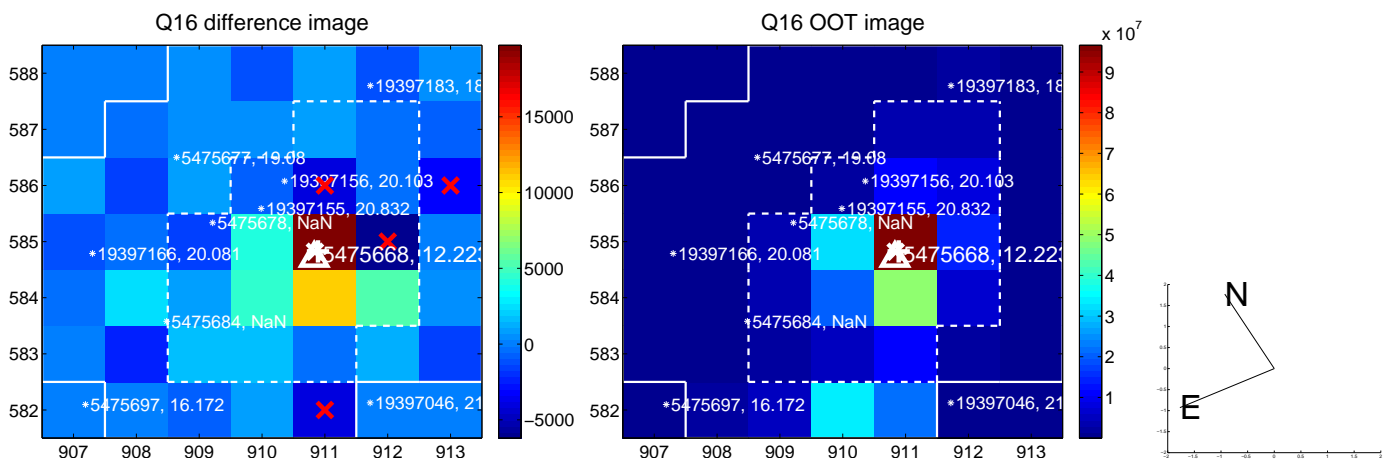
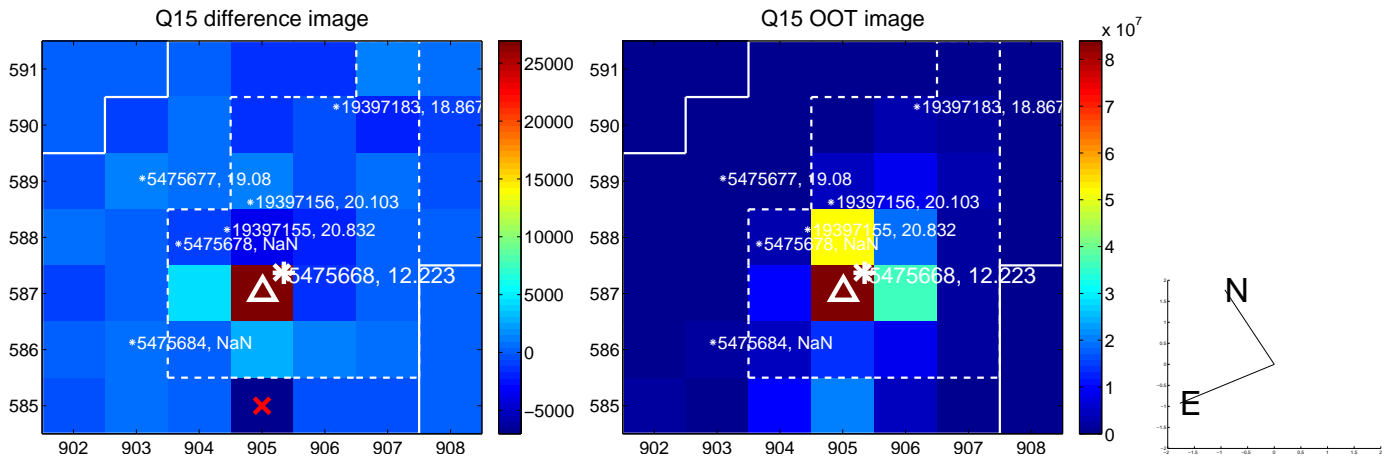
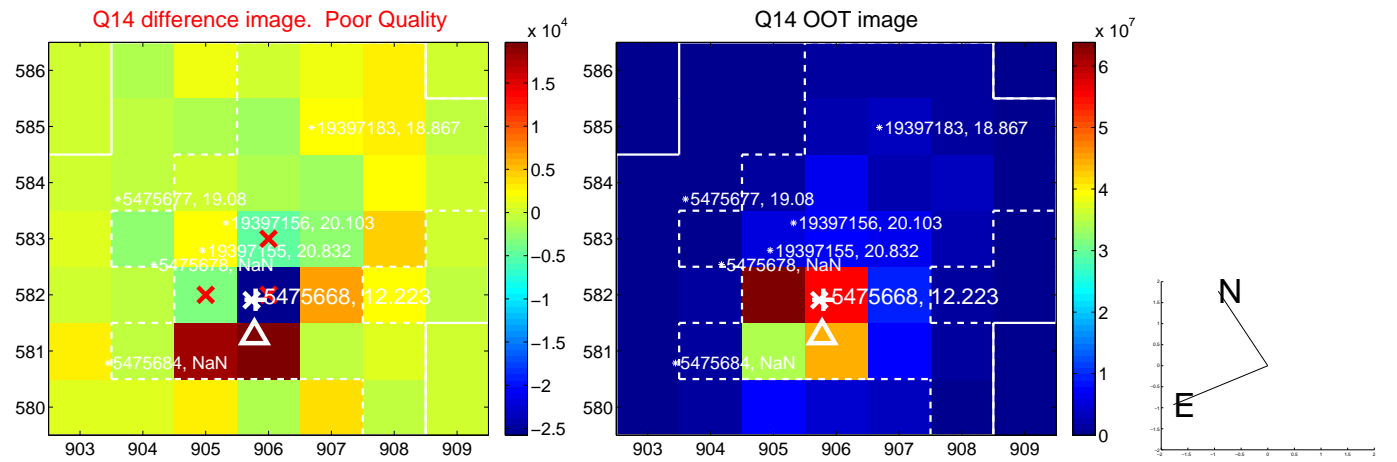
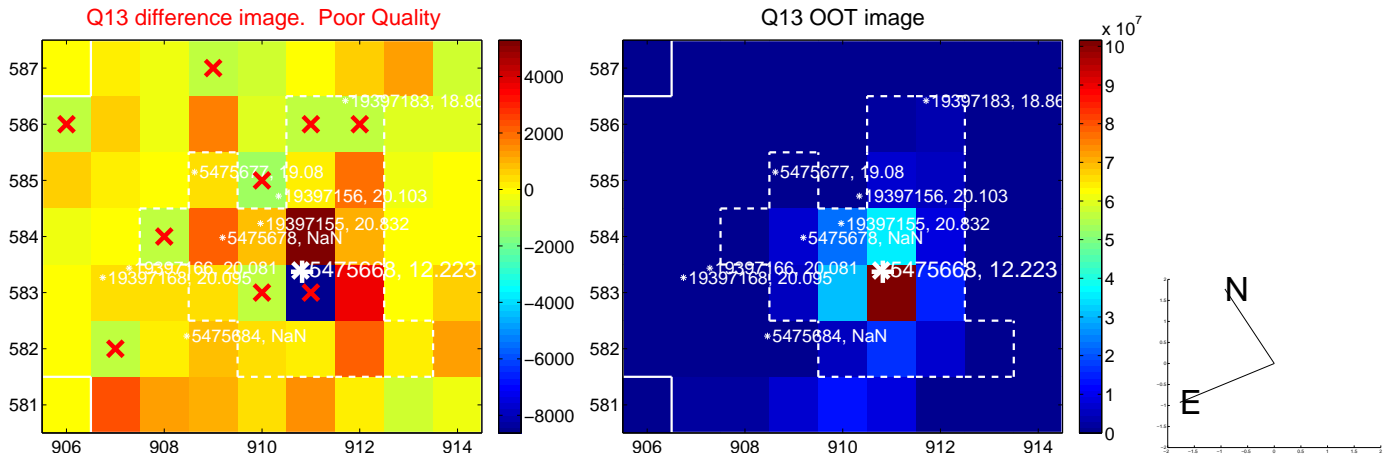
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



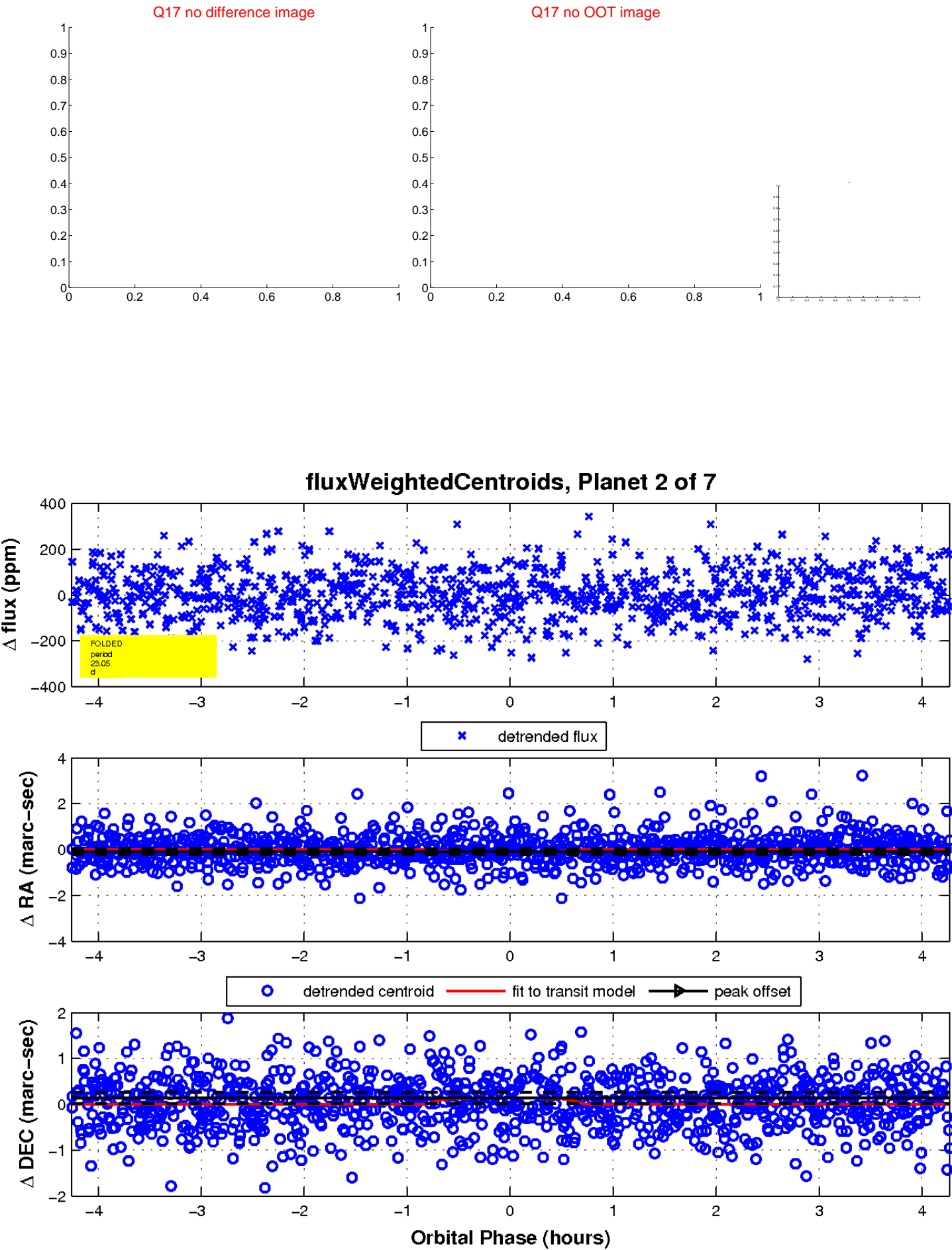
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



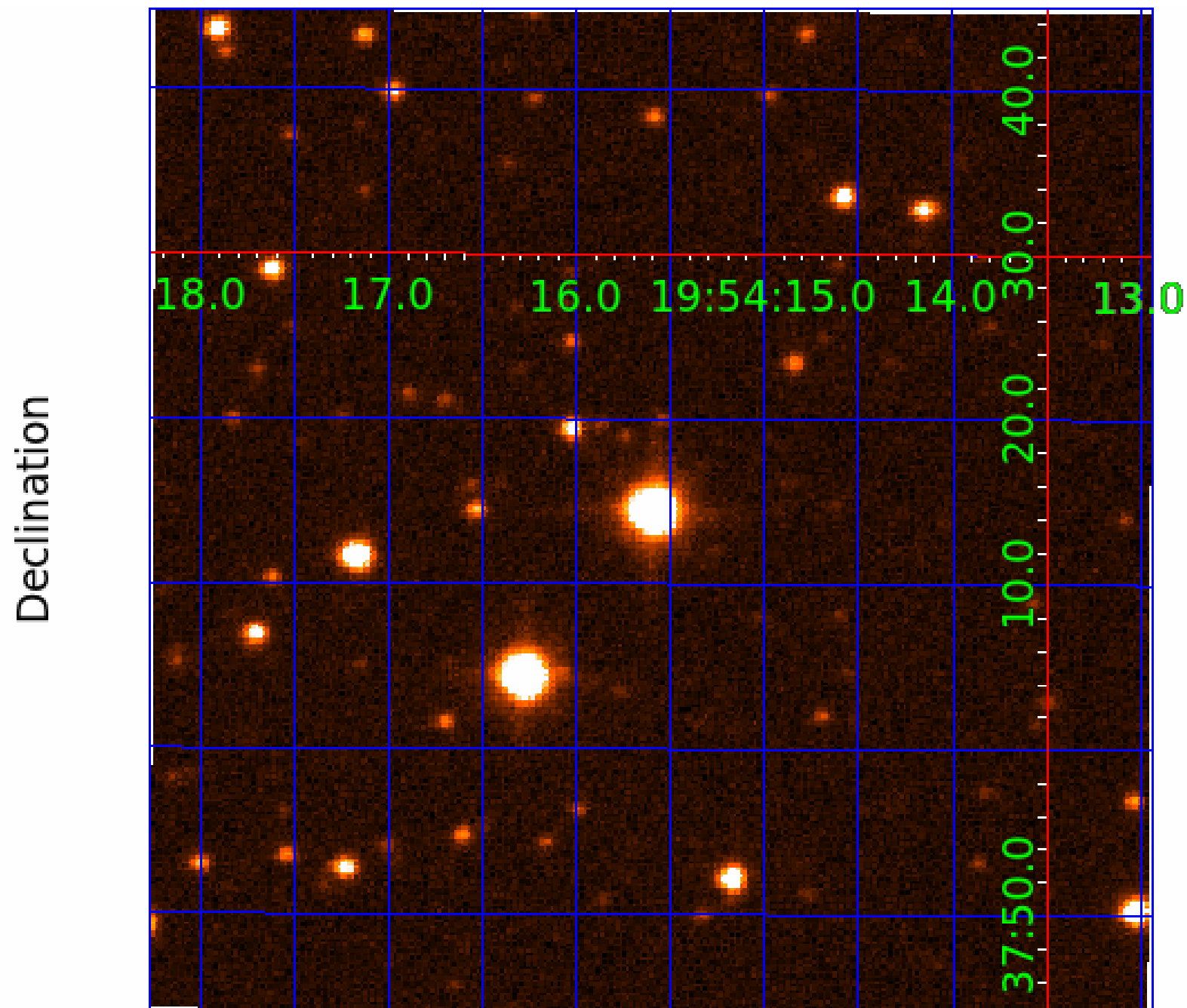
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005475668

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})
005475668-01	OBS	No	0.628755	132.180580	4.4	4.649	9.4	4.4	2.01	8211	0.43	54751.94
005475668-02	OBS	No	23.046835	153.053781	182.2	1.423	13.8	14.1	2.01	8211	2.85	449.67
005475668-03	OBS	No	17.179508	134.861136	202.2	0.982	12.6	14.4	2.01	8211	3.10	665.31
005475668-04	OBS	No	16.794083	134.128818	131.7	1.375	12.3	9.3	2.01	8211	2.60	685.75
005475668-06	OBS	No	13.574715	138.475006	195.5	0.752	12.1	12.3	2.01	8211	2.97	910.75
005475668-07	OBS	No	6.968977	137.476932	180.3	0.705	8.1	13.1	2.01	8211	2.85	2215.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475668-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005475668-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

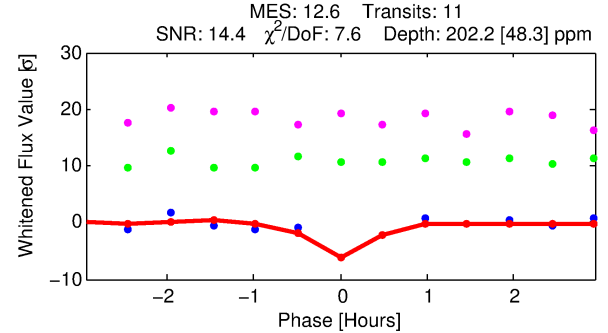
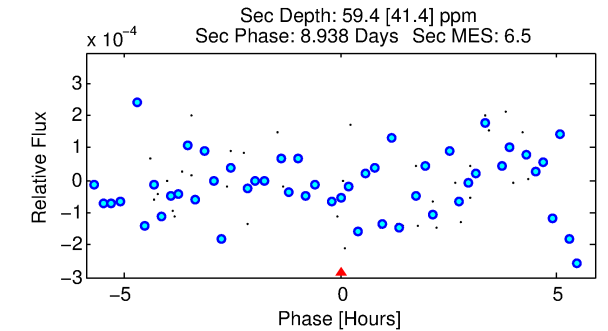
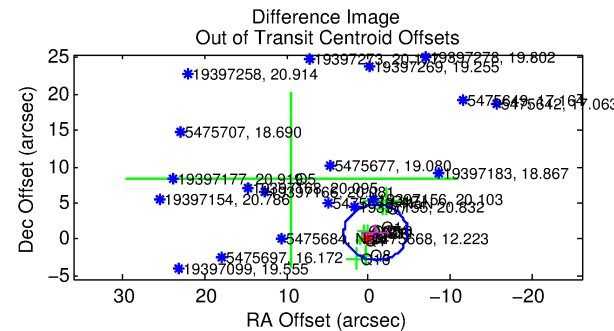
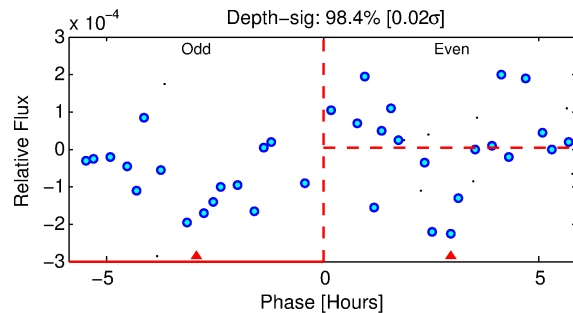
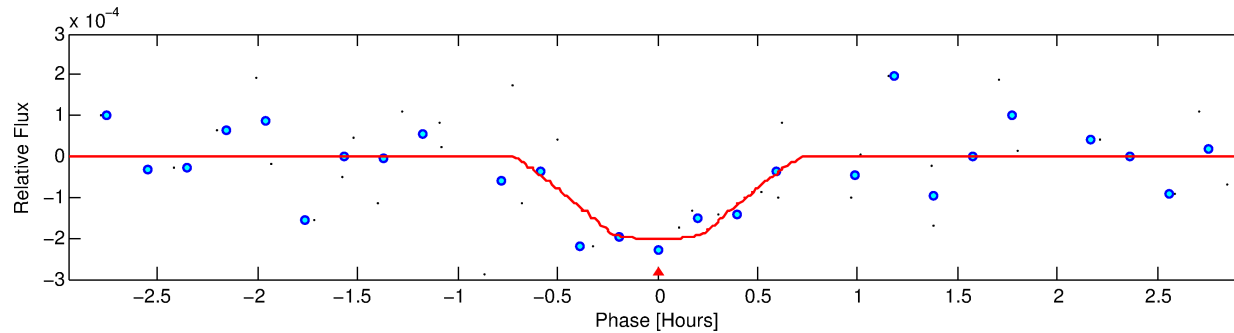
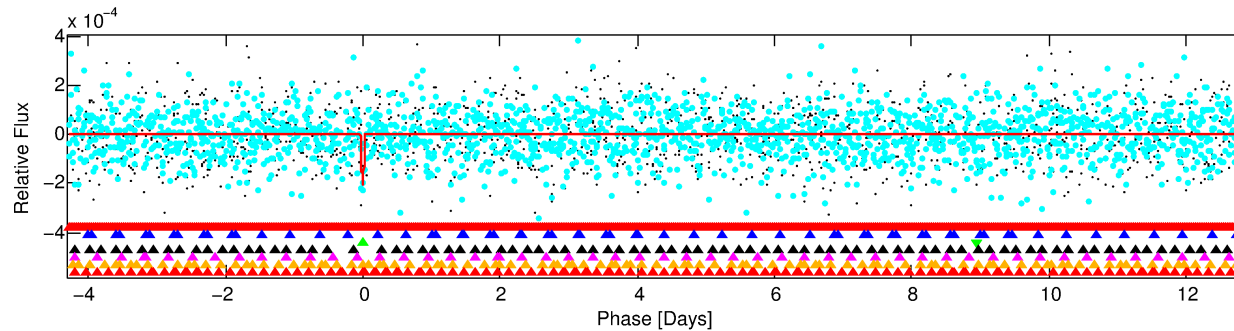
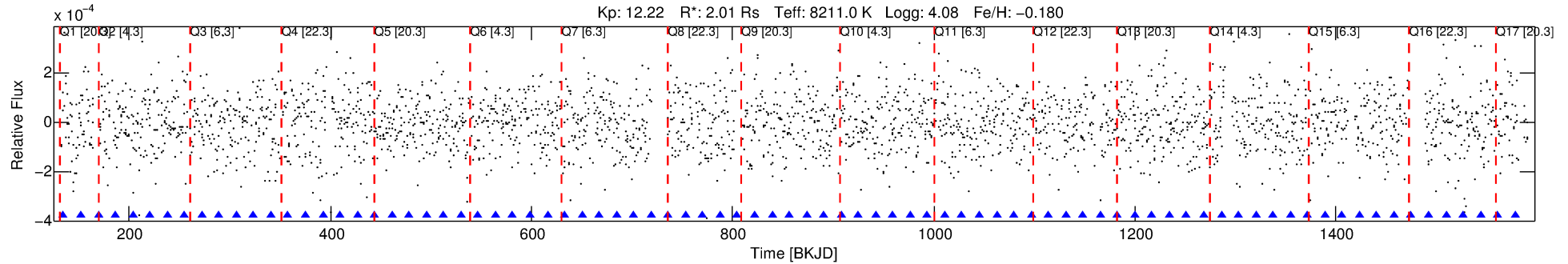
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475668-03

No Significant Match Found

DV One-Page Summary

KIC: 5475668 Candidate: 3 of 7 Period: 17.180 d



DV Fit Results:

Period = 17.17951 [0.00033] d
Epoch = 134.8611 [0.0104] BKJD
Rp/R* = 0.0141 [0.0169]
a/R* = 96.89 [687.77]
b = 0.71 [5.05]
Seff = 665.31 [225.62]
Teq = 1295 [110] K
Rp = 3.10 [3.77] Re
a = 0.1575 [0.0313] AU
Ag = 84.42 [211.70] [0.39σ]
Teffp = 6069 [3787] K [1.26σ]

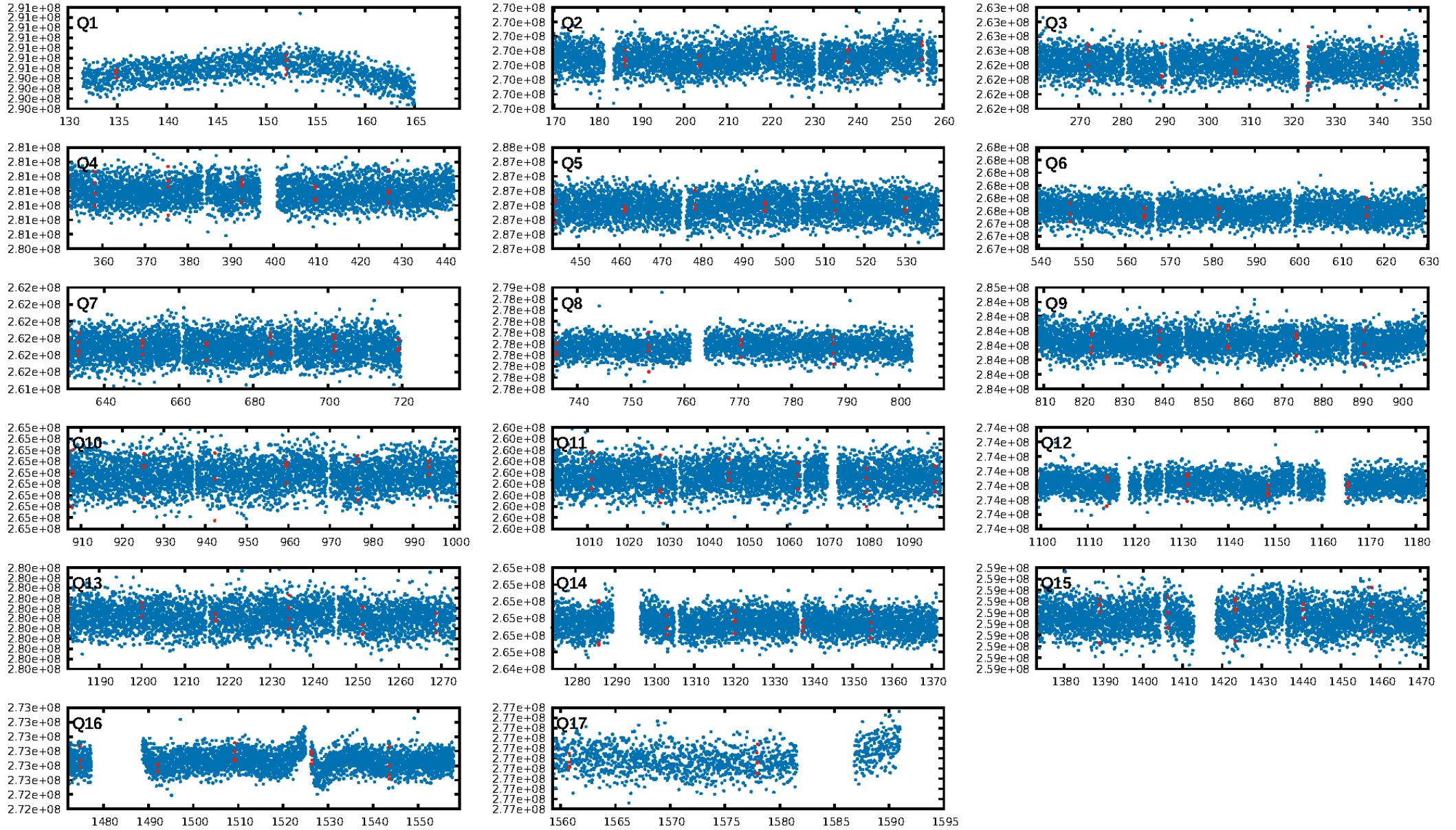
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.47σ]
LongPeriod-sig: 100.0% [45.66σ]
ModelChiSquare2-sig: 1.1%
ModelChiSquareGof-sig: 12.9%
Bootstrap-pfa: 6.72e-22
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 0.3634
Centroid-sig: 55.7%
Centroid-so: 1.384 arcsec [2.18σ]
OotOffset-rm: 1.282 arcsec [1.00σ]
OotOffset-st: 3/4/4/2 [13]
KicOffset-rm: 1.361 arcsec [1.00σ]
KicOffset-st: 3/4/4/2 [13]
DiffImageQuality-fgm: 0.23 [3/13]
DiffImageOverlap-fno: 0.00 [0/17]

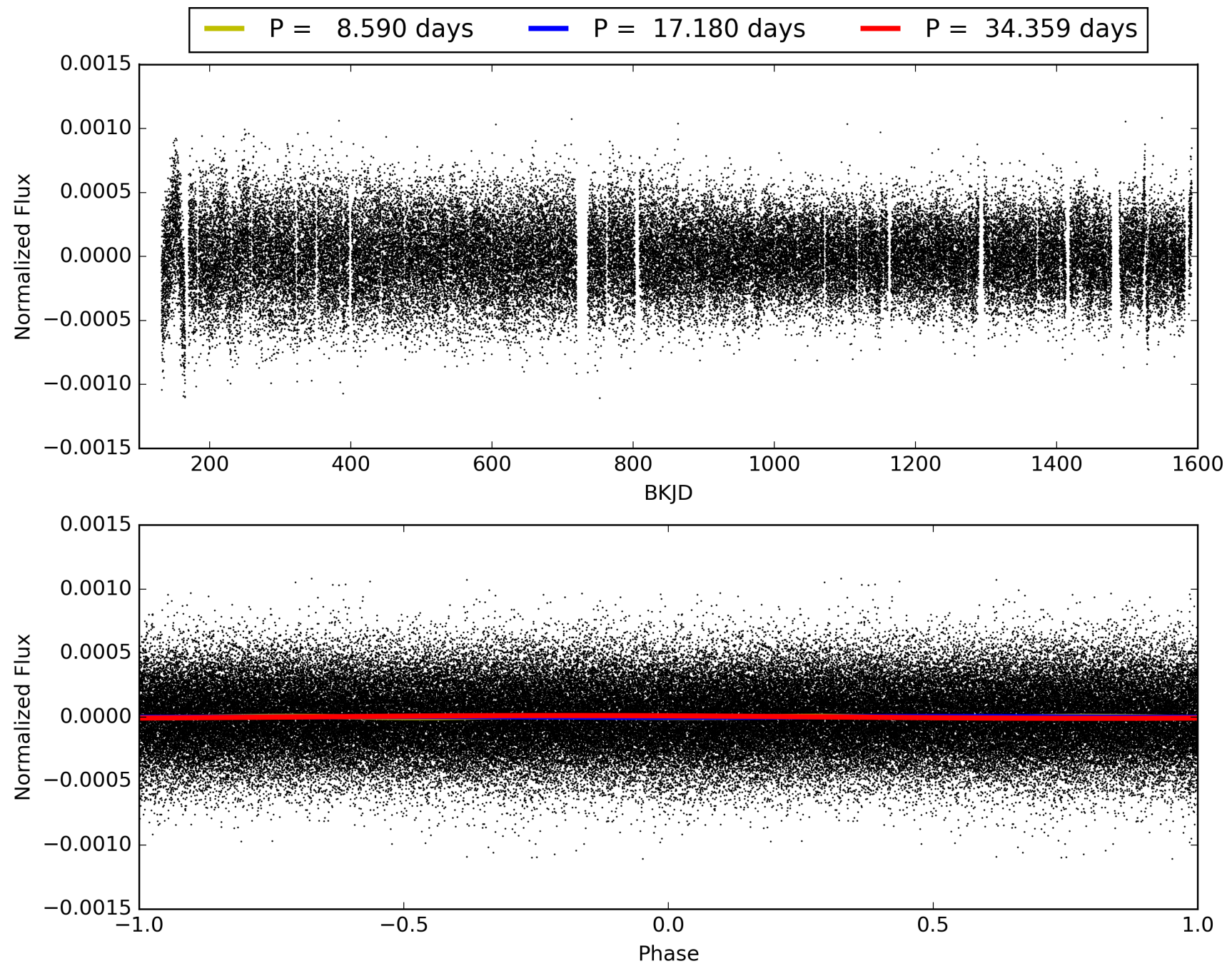
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:28:20 Z

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

TCE 005475668-03, PDC Light Curves

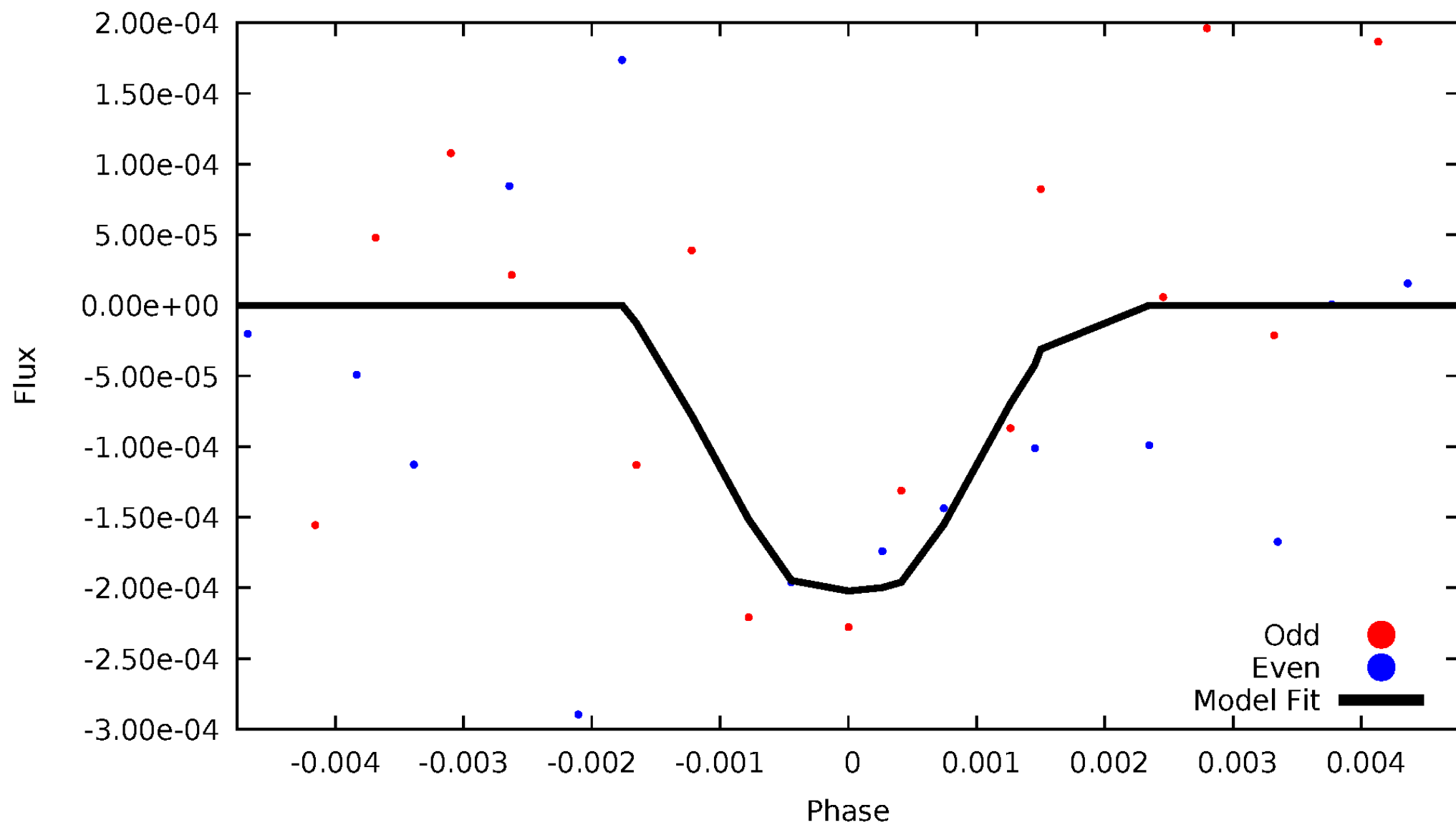


TCE 005475668-03



DV Odd/Even

TCE 005475668-03

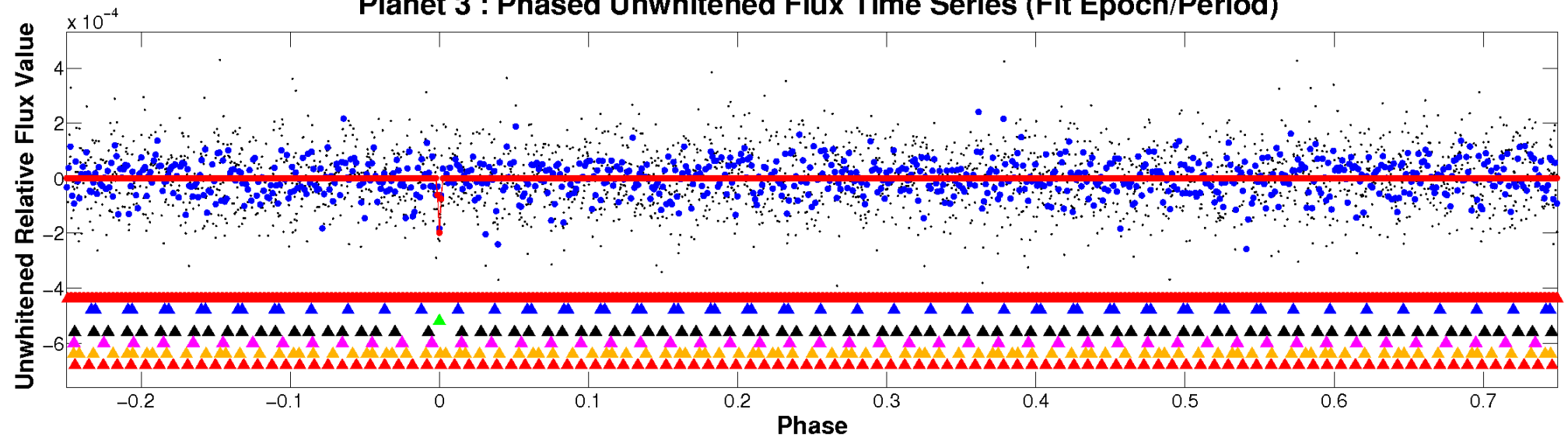


ALT Odd/Even

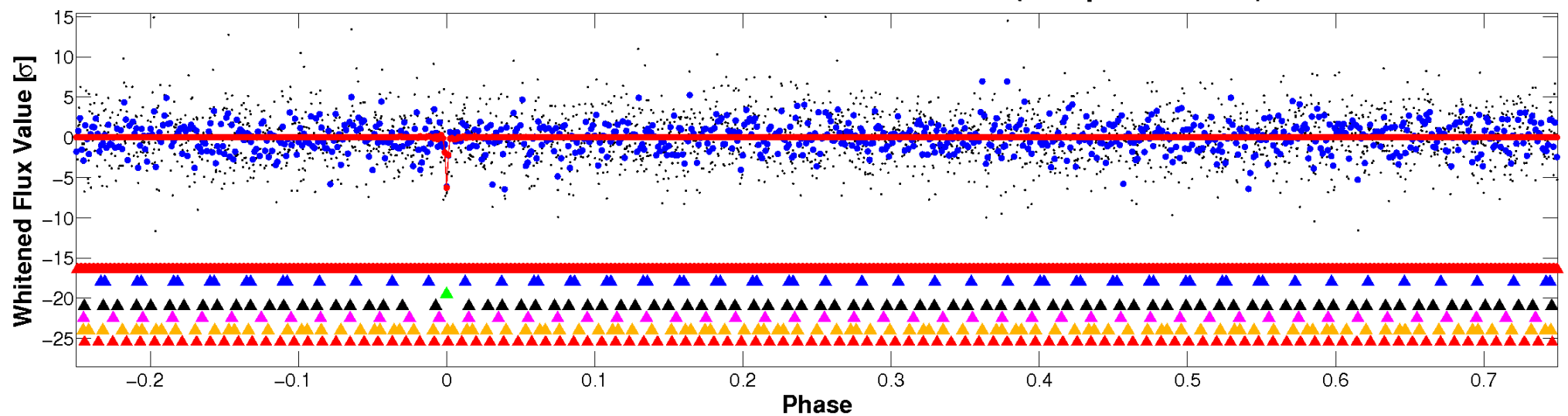
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

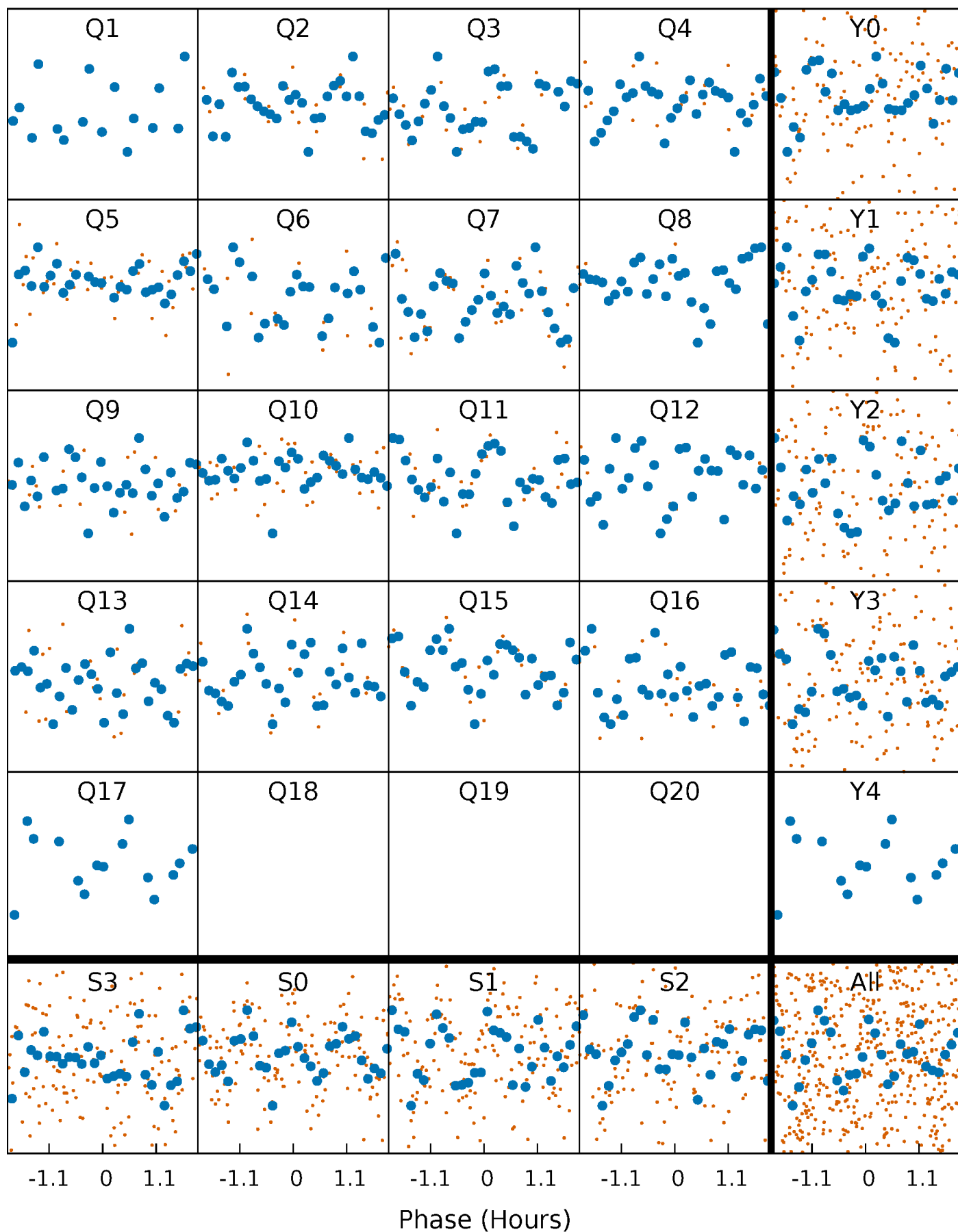


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



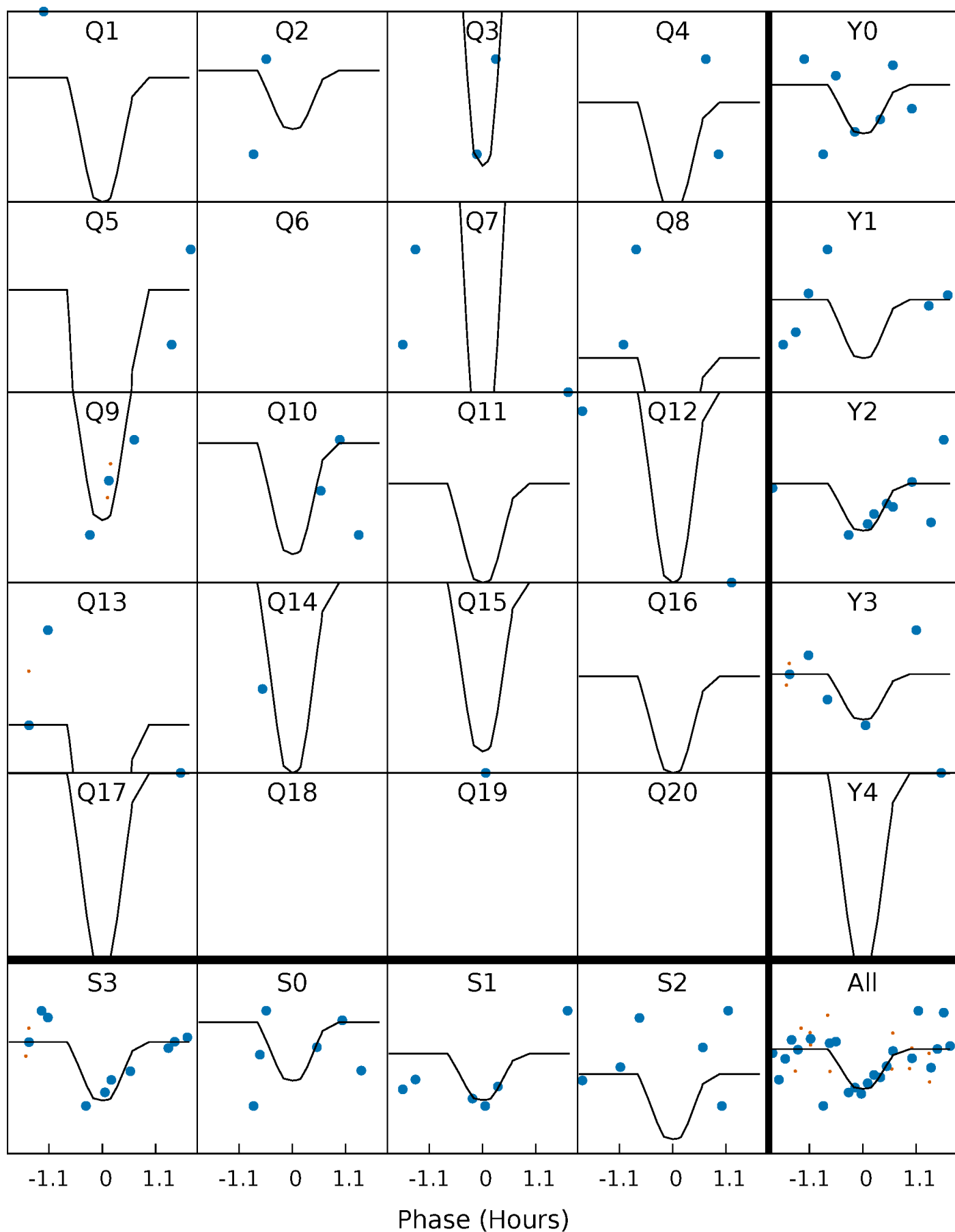
PDC Quarter-Phased Transit Curves

TCE 005475668-03 P= 17.179508 Days $T_0=134.861136$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005475668-03 P= 17.179508 Days $T_0=134.861136$ (BKJD)

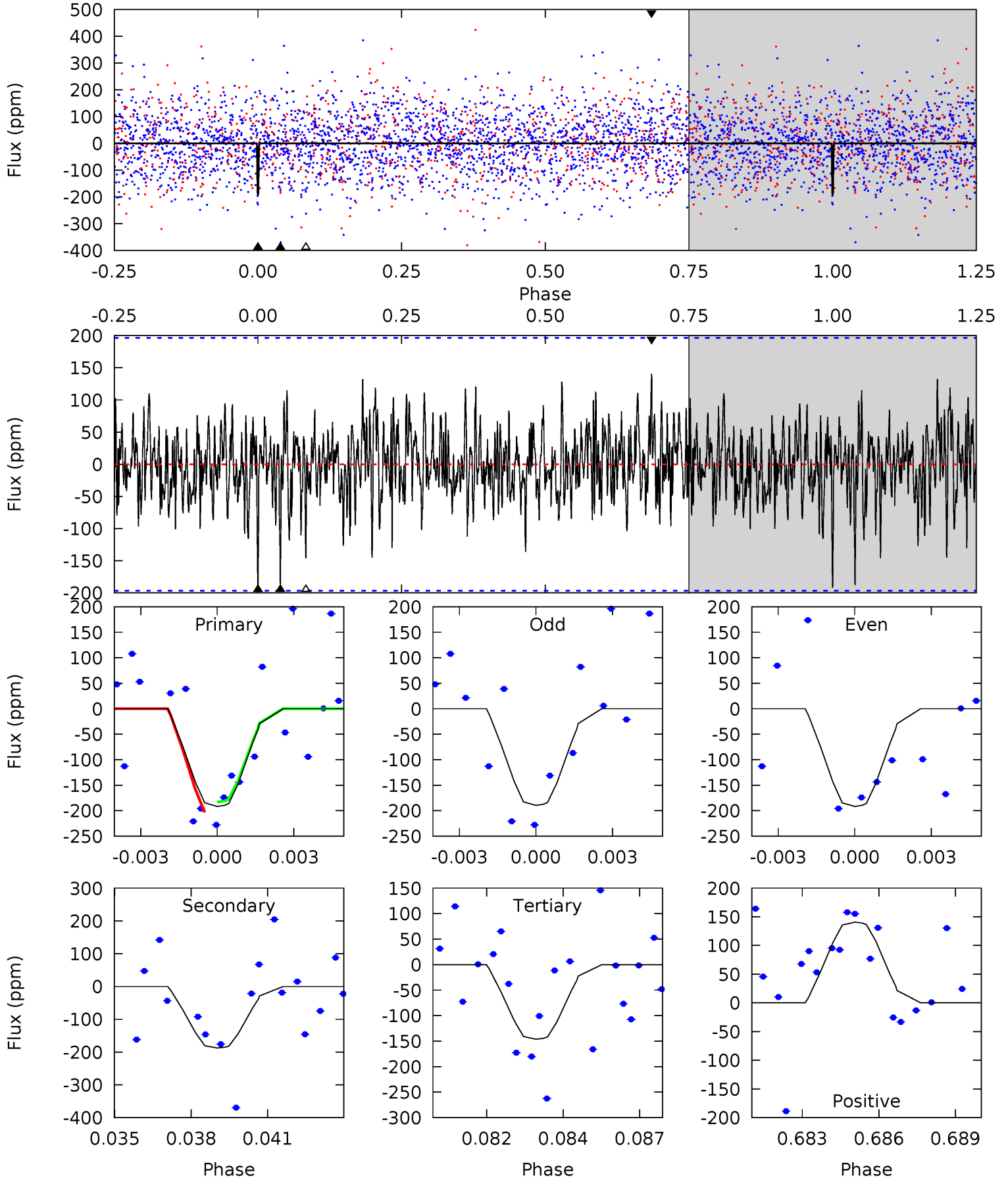


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005475668-03, P = 17.179508 Days, E = 117.681628 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.14	5.03	3.92	3.77	5.27	3.00	1.22	1.22	1.36	1.11	1.26	0.03	0.99	0.42	0.24



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005475668

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8211^{+226}_{-340}	$4.077^{+0.165}_{-0.150}$	$-0.180^{+0.250}_{-0.300}$	$2.013^{+0.462}_{-0.462}$	$1.763^{+0.146}_{-0.271}$	$0.304^{+0.266}_{-0.122}$
	+3%/-4%	+4%/-4%	+139%/-167%	+23%/-23%	+8%/-15%	+87%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005475668-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-188 ± 37	$3.89^{+3.49}_{-2.41}$	1804^{+109}_{-121}	6877^{+6966}_{-1791}	165^{+942}_{-120}
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

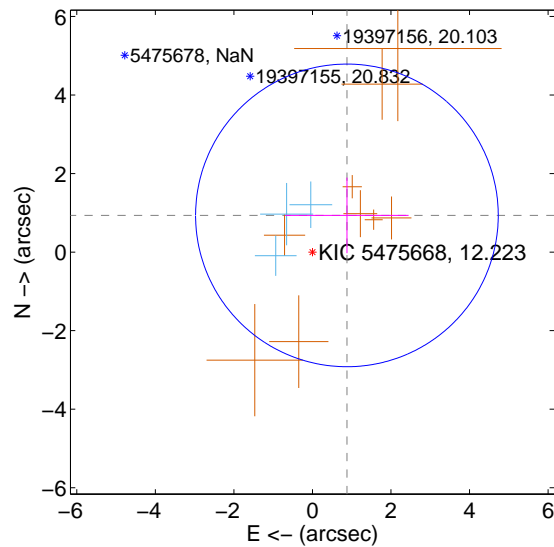
Supplemental centroid analysis for 005475668-03. Kepler magnitude: 12.22. Transit SNR 14.42

There are 3 quarters with good PRF difference image offsets

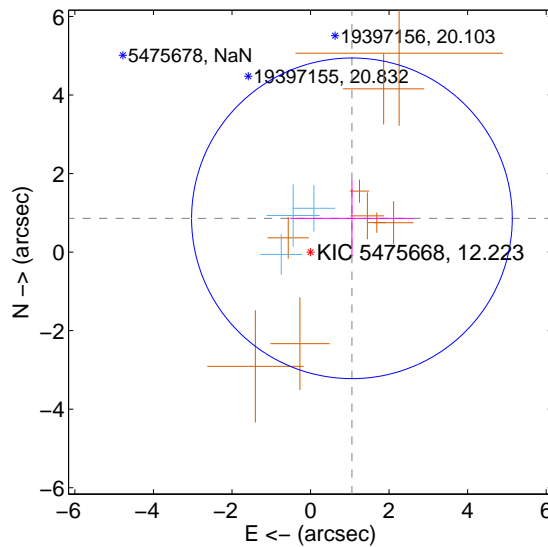
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.282 ± 1.284	1.00	-0.878 ± 1.571	0.934 ± 0.963
PRF-fit source offset from KIC position	1.361 ± 1.361	1.00	-1.054 ± 1.571	0.860 ± 0.963
photometric centroid source offset	1.38 ± 0.63	2.18	0.95 ± 0.66	-1.01 ± 0.61

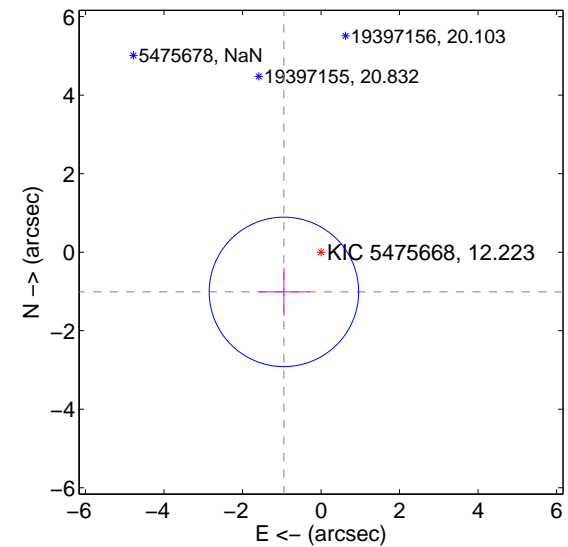
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

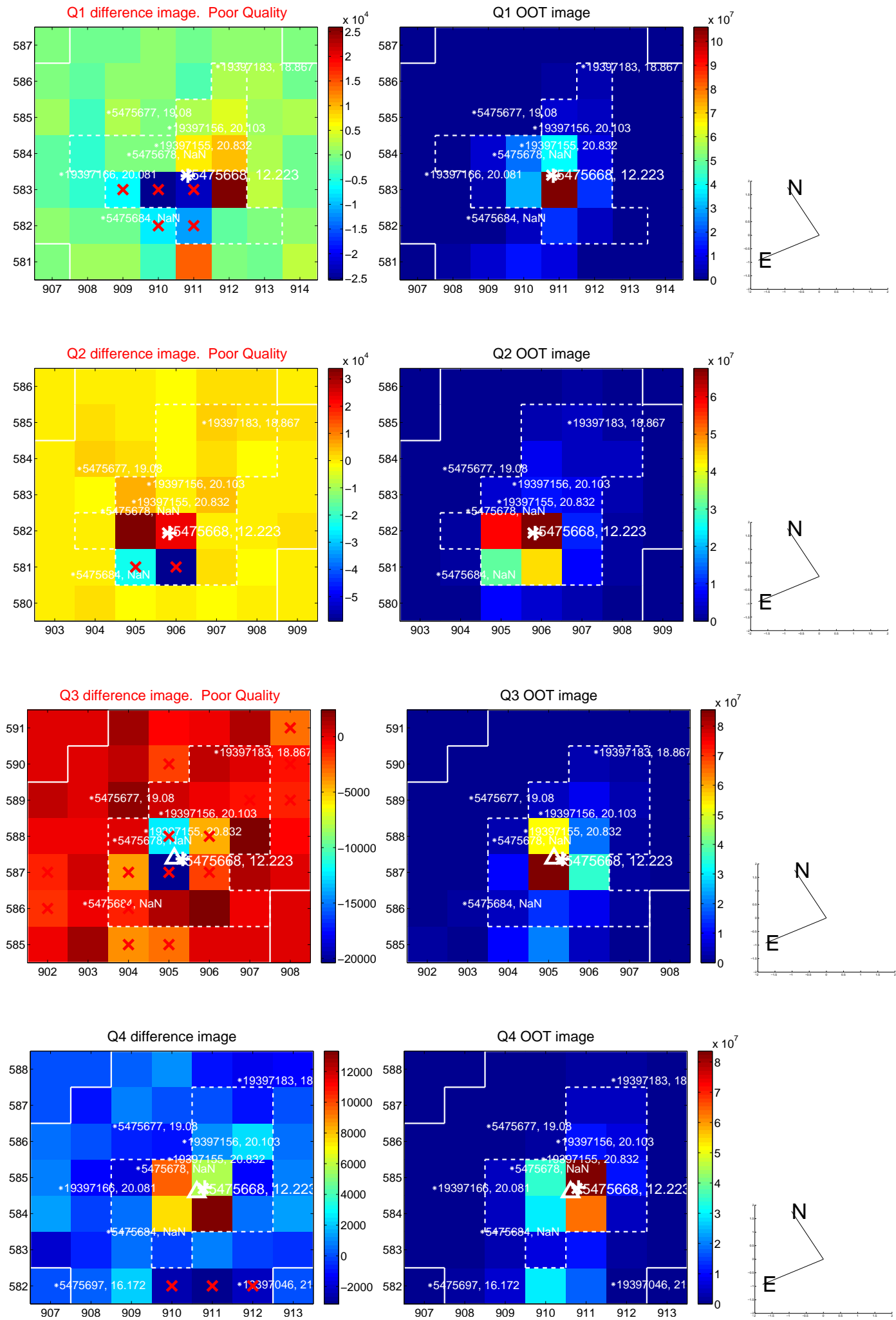


offset from photometric centroids

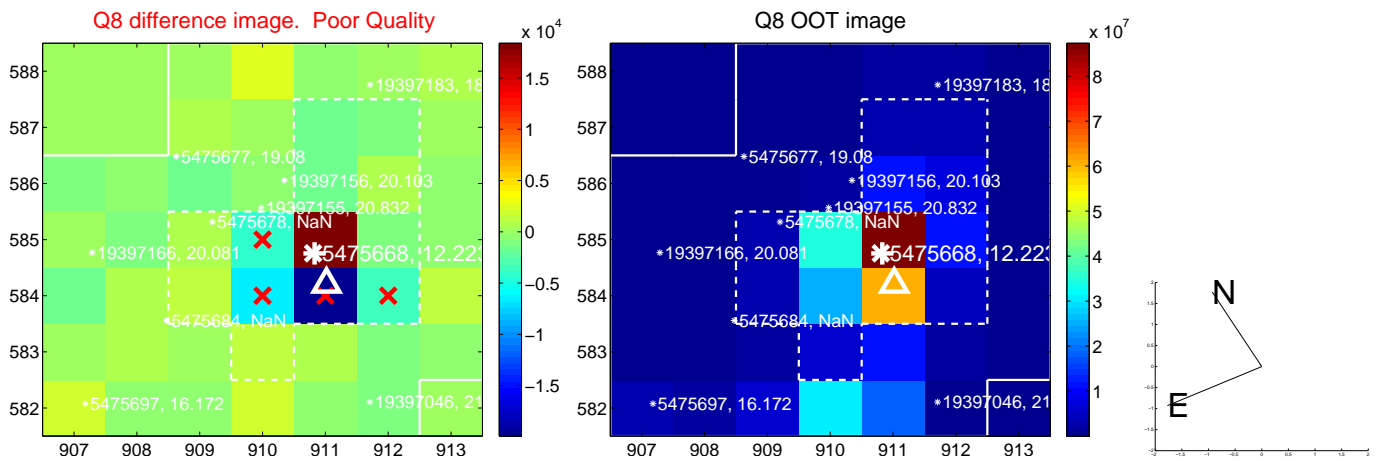
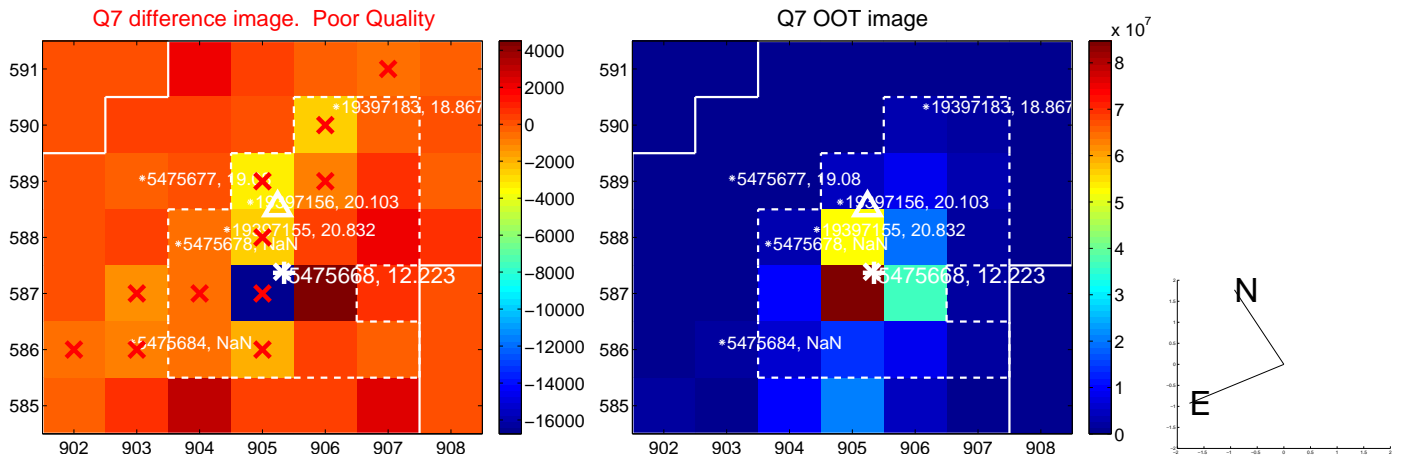
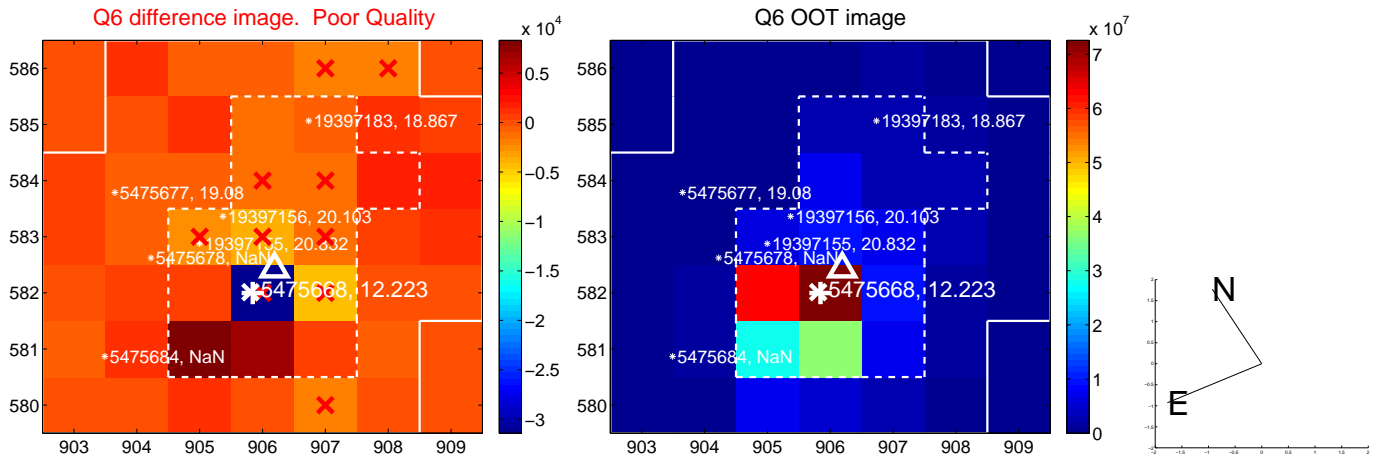
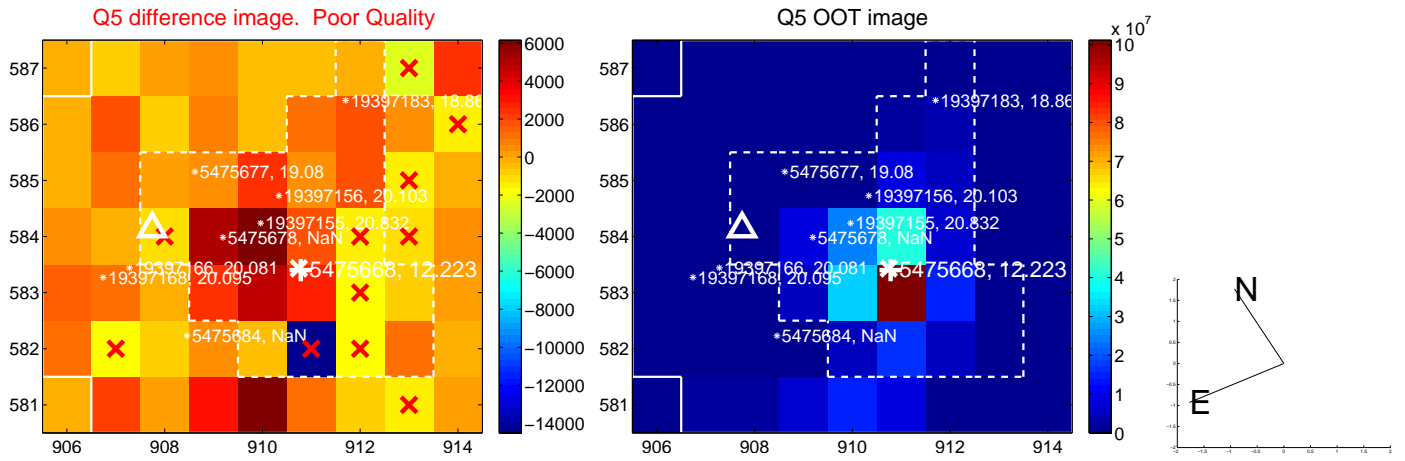


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

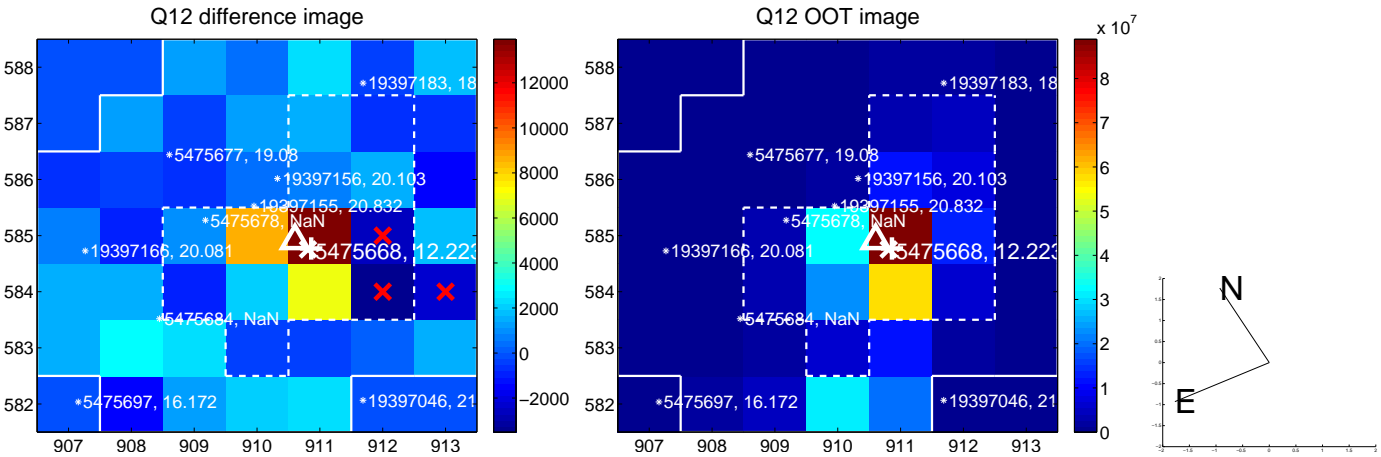
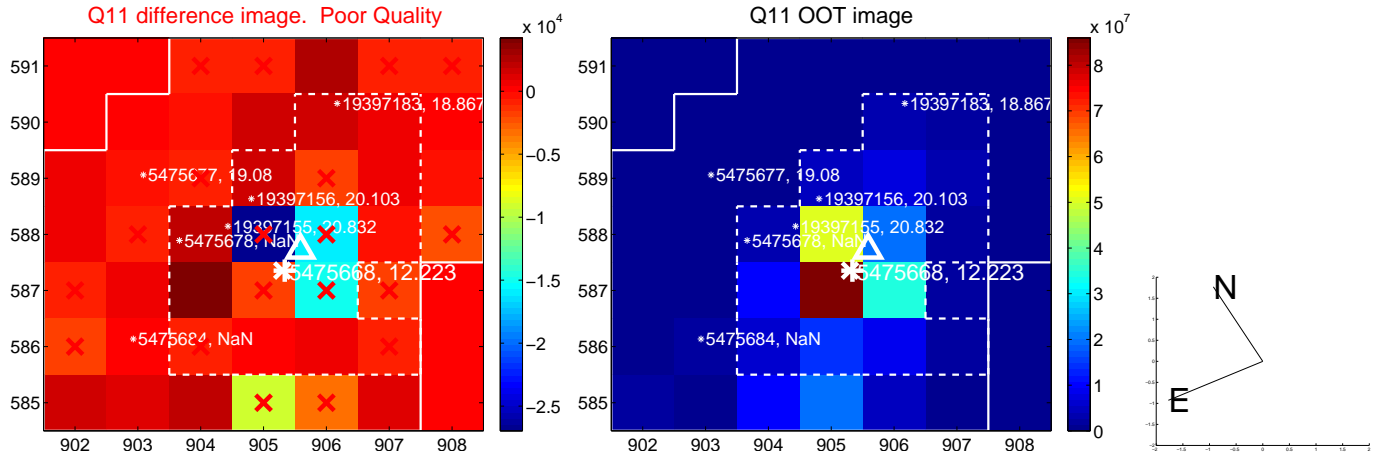
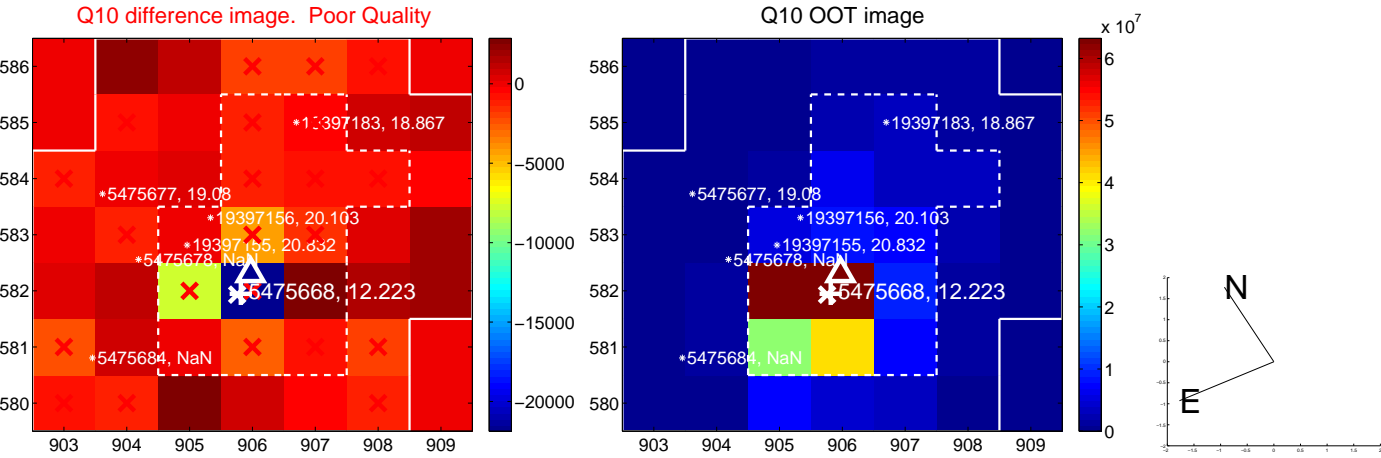
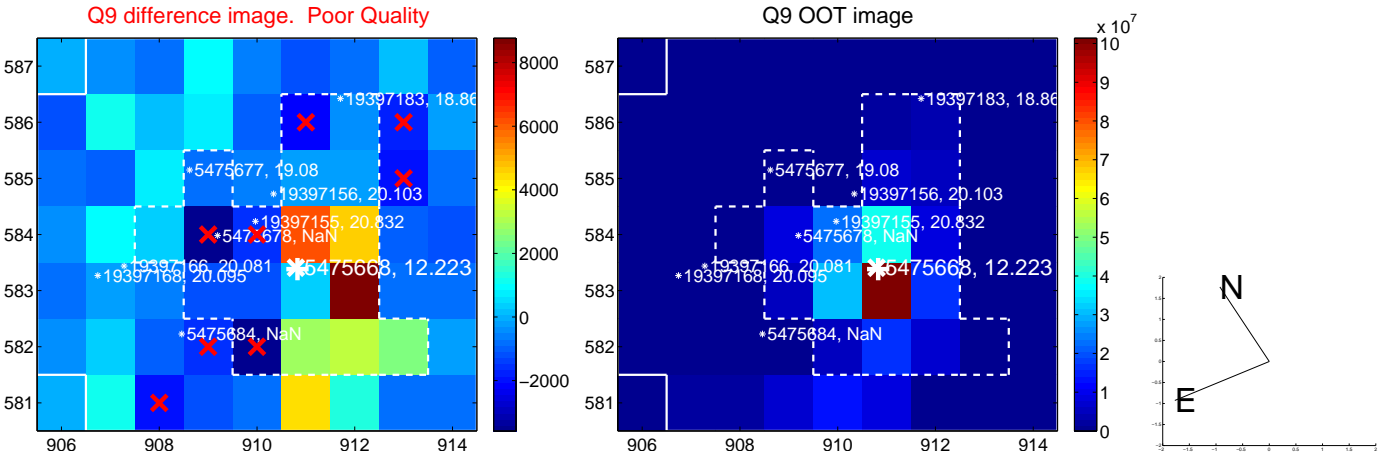
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



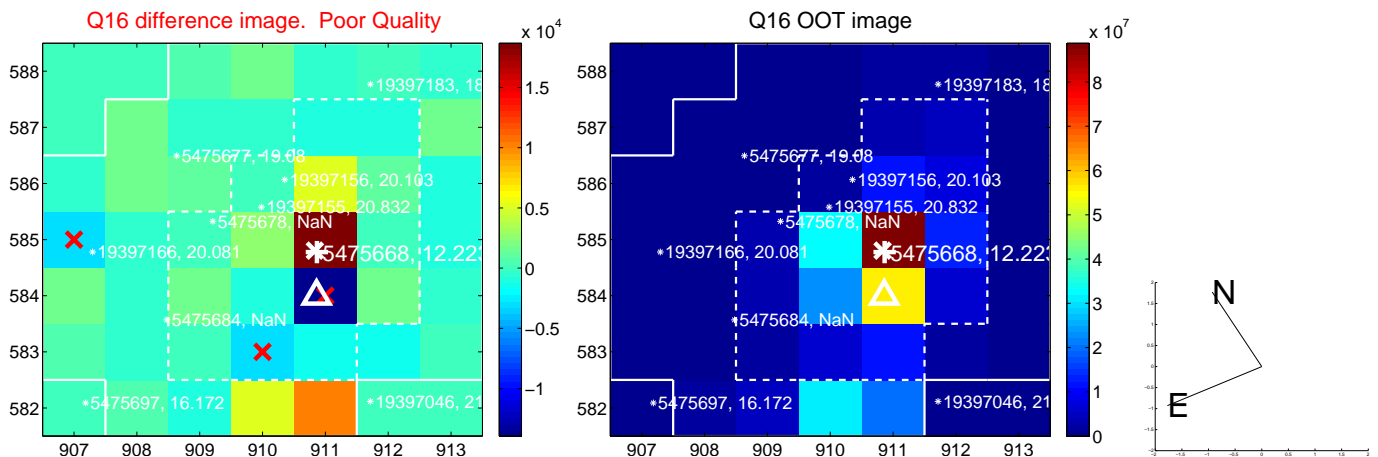
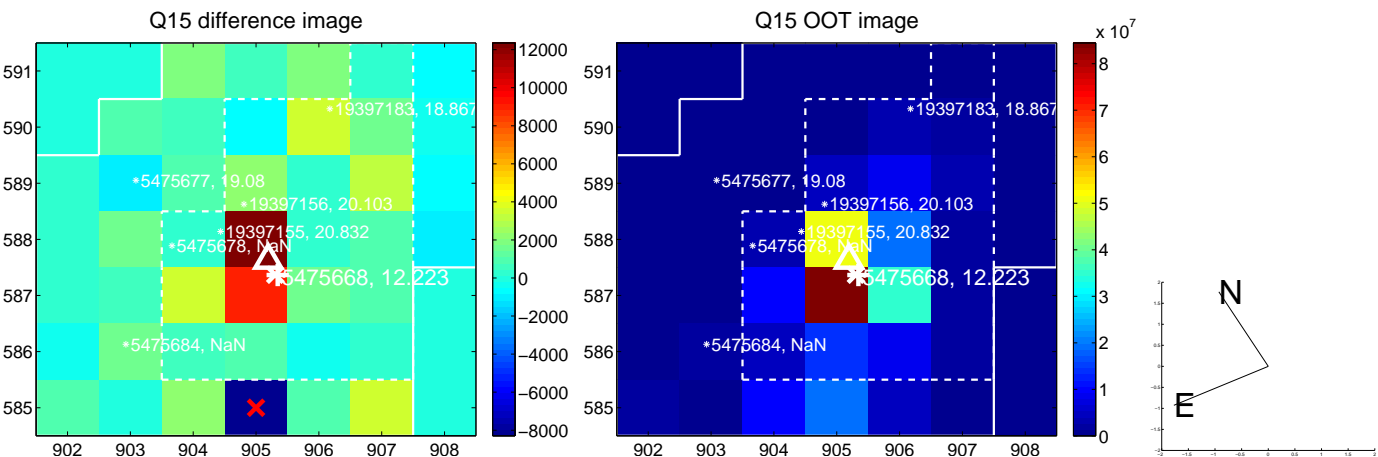
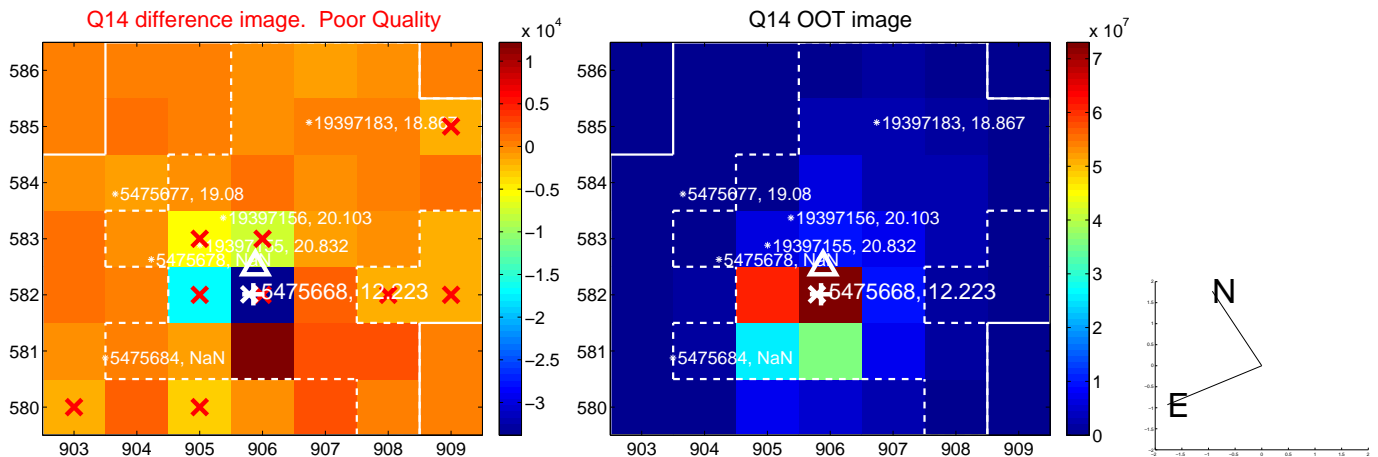
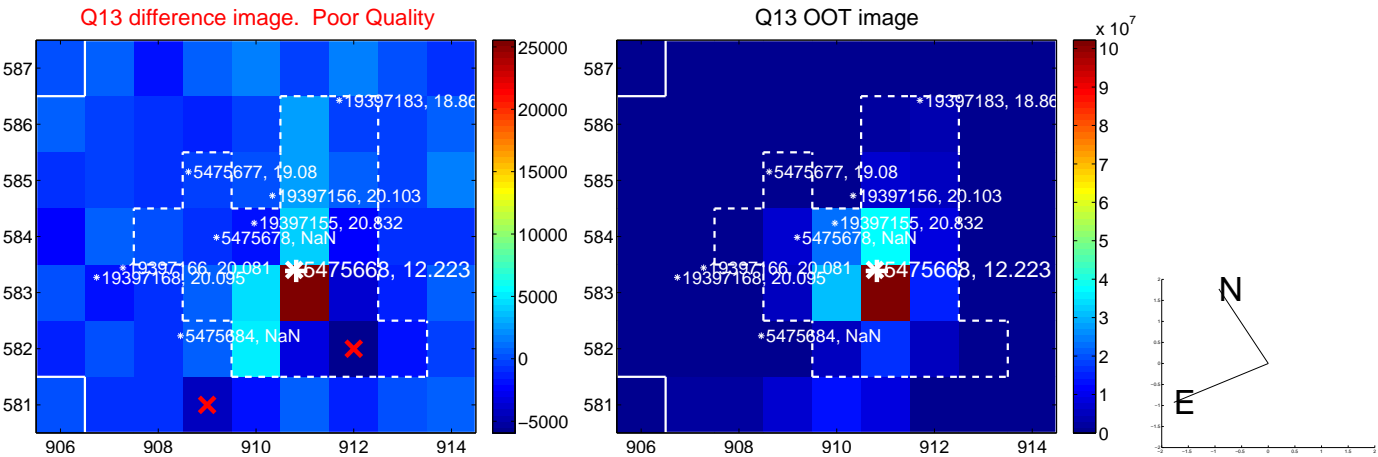
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



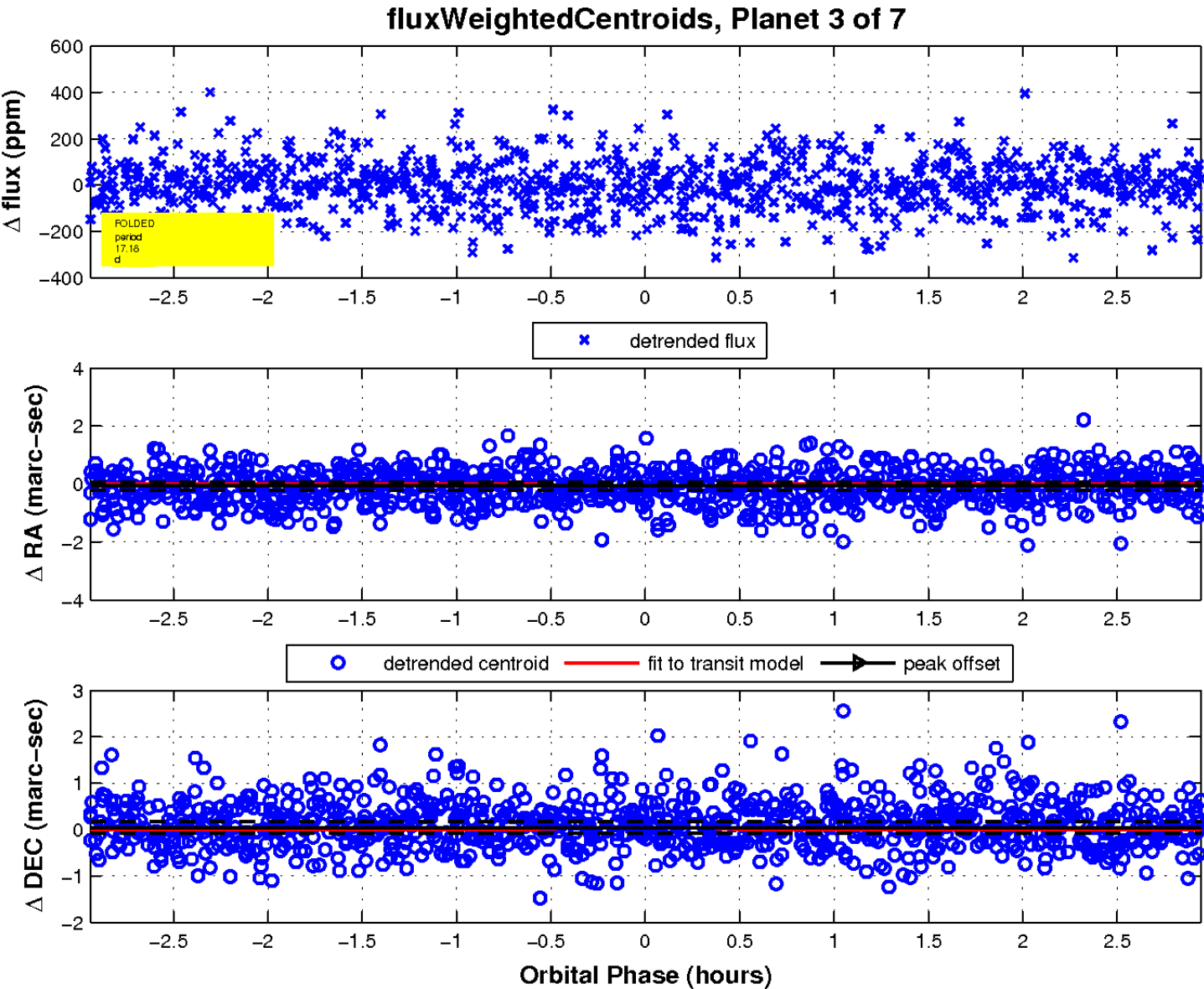
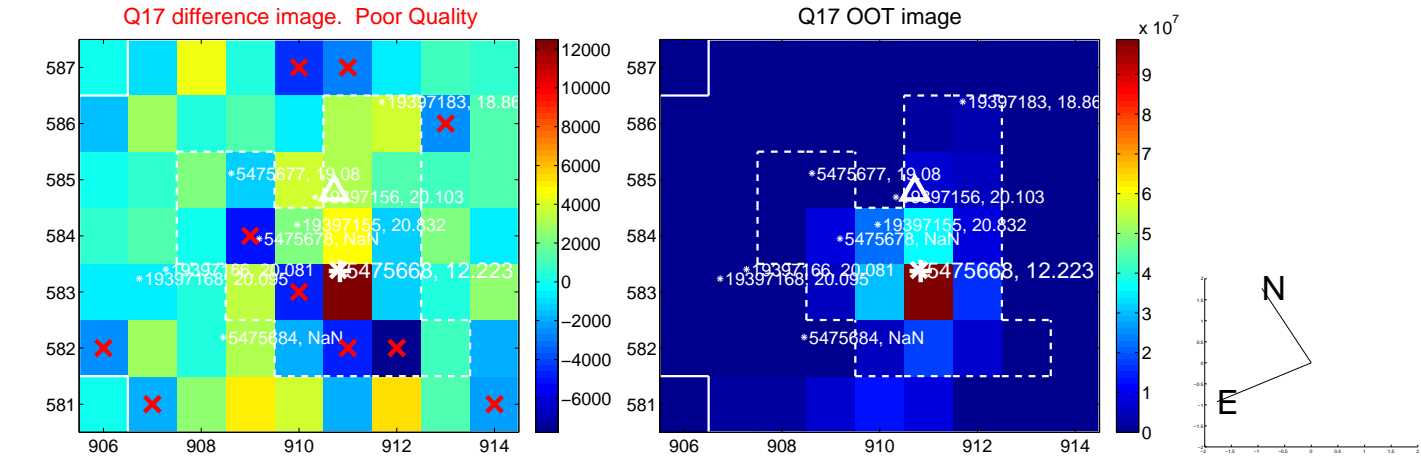
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



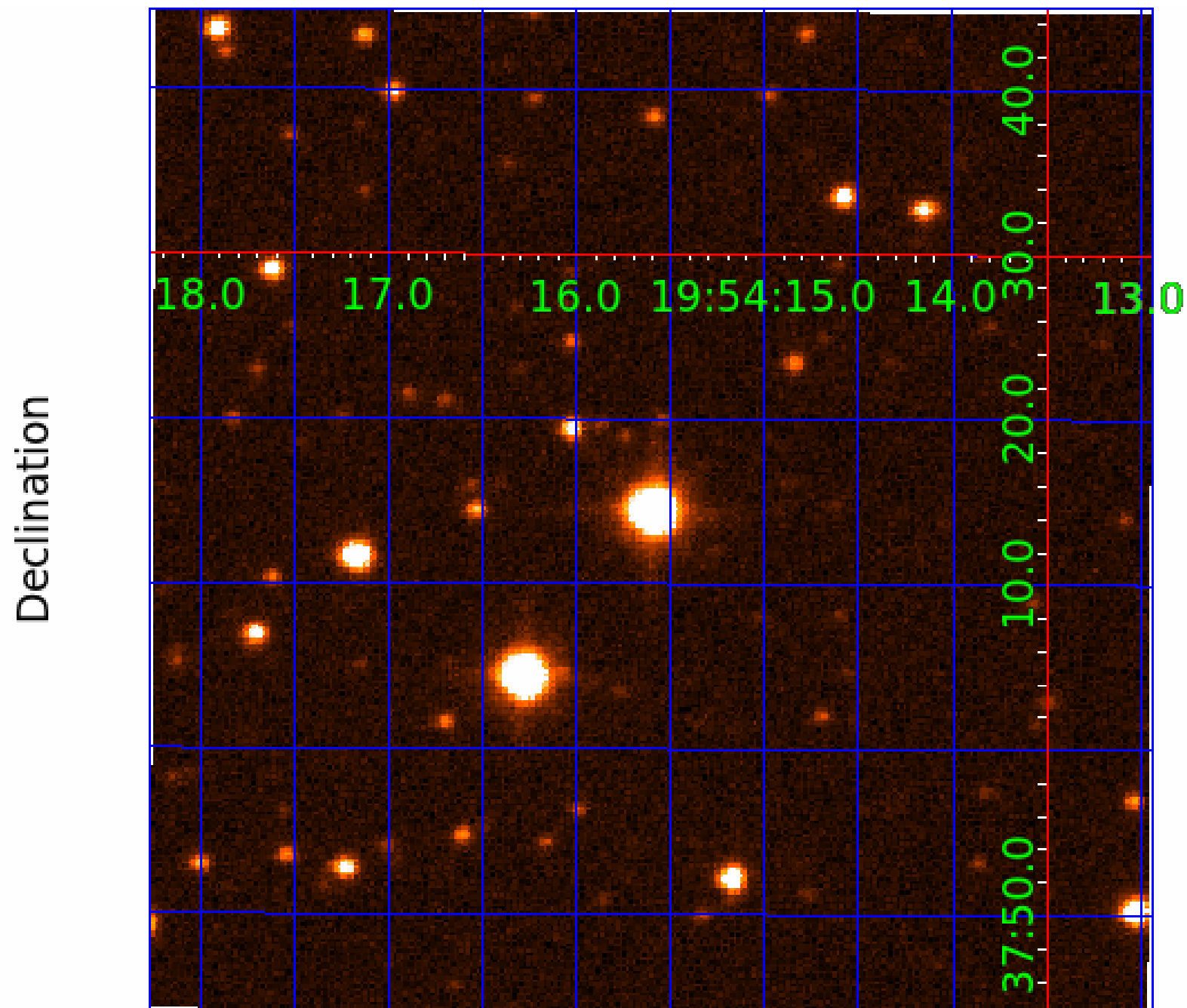
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005475668

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})
005475668-01	OBS	No	0.628755	132.180580	4.4	4.649	9.4	4.4	2.01	8211	0.43	54751.94
005475668-02	OBS	No	23.046835	153.053781	182.2	1.423	13.8	14.1	2.01	8211	2.85	449.67
005475668-03	OBS	No	17.179508	134.861136	202.2	0.982	12.6	14.4	2.01	8211	3.10	665.31
005475668-04	OBS	No	16.794083	134.128818	131.7	1.375	12.3	9.3	2.01	8211	2.60	685.75
005475668-06	OBS	No	13.574715	138.475006	195.5	0.752	12.1	12.3	2.01	8211	2.97	910.75
005475668-07	OBS	No	6.968977	137.476932	180.3	0.705	8.1	13.1	2.01	8211	2.85	2215.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475668-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005475668-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

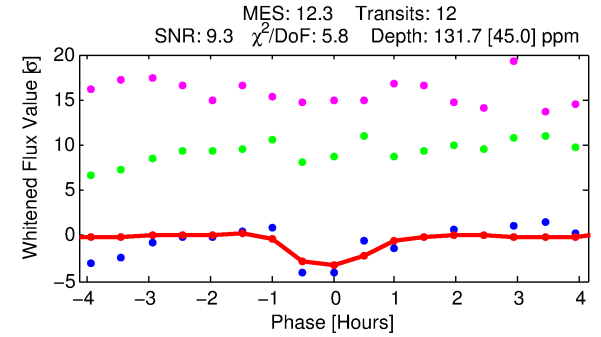
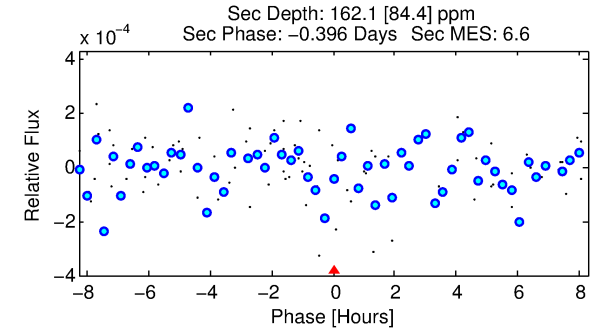
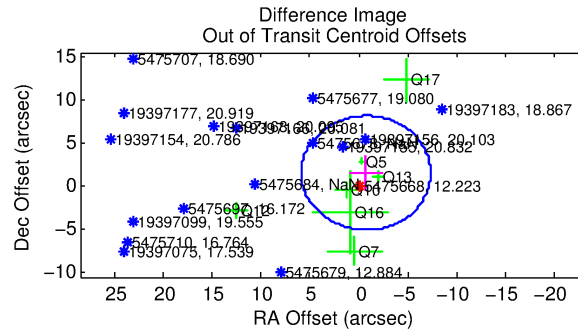
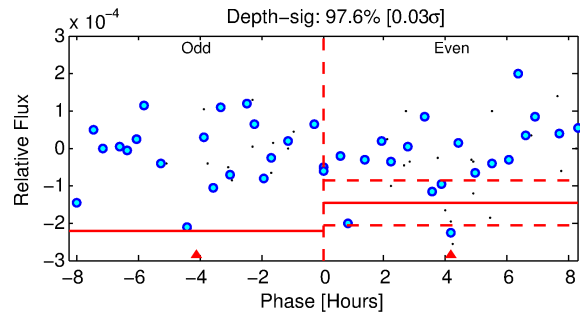
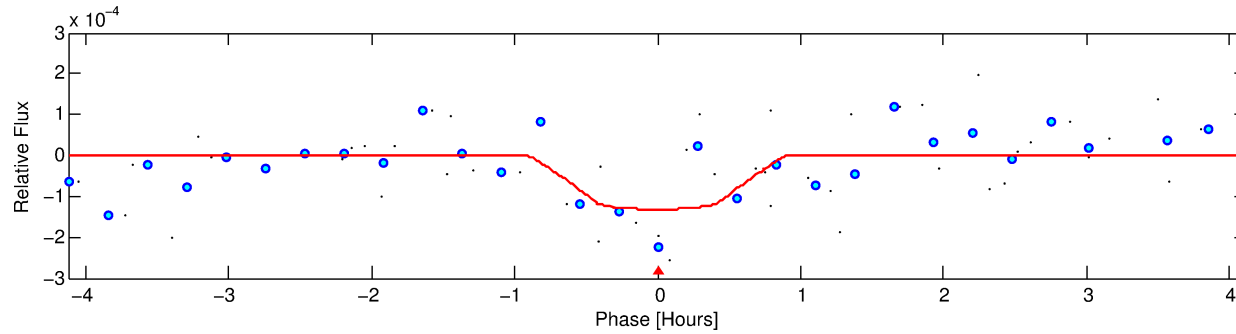
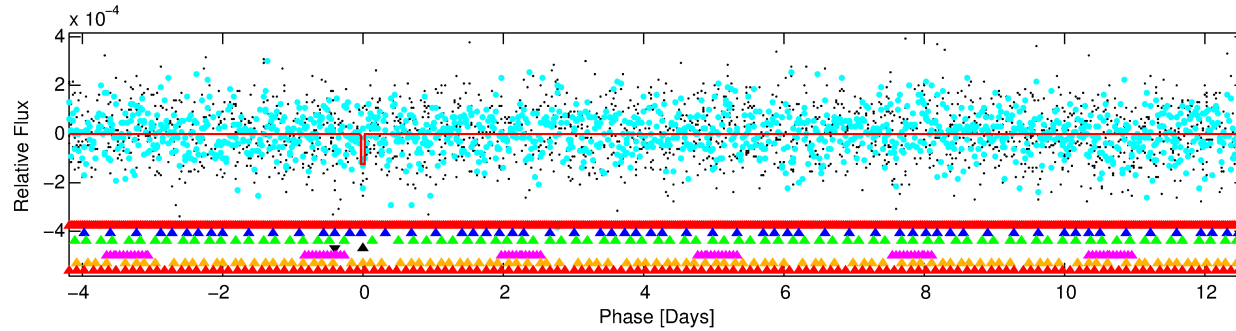
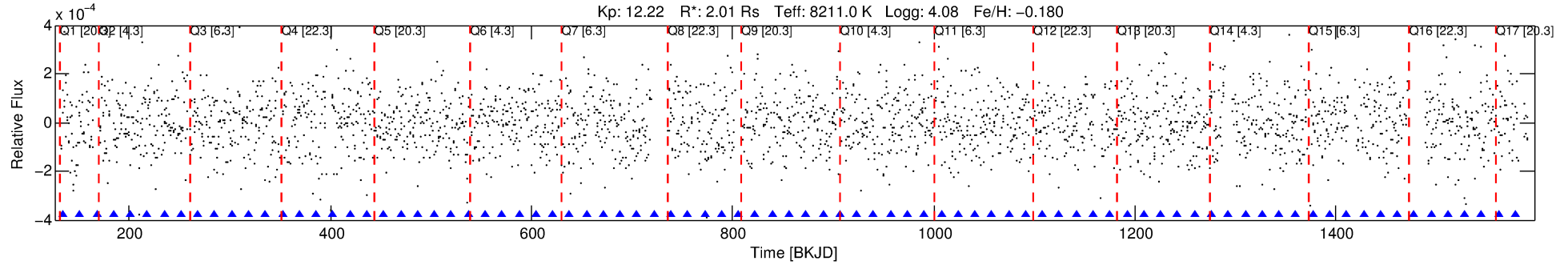
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475668-04

No Significant Match Found

DV One-Page Summary

KIC: 5475668 Candidate: 4 of 7 Period: 16.794 d



DV Fit Results:

Period = 16.79408 [0.00029] d
Epoch = 134.1288 [0.0172] BKJD
Rp/R* = 0.0119 [0.0227]
a/R* = 52.28 [595.28]
b = 0.84 [3.96]
Seff = 685.75 [232.55]
Teq = 1305 [111] K
Rp = 2.61 [5.02] Re
a = 0.1551 [0.0308] AU
Ag = 316.18 [1225.78] [0.26σ]
Teffp = 8507 [8229] K [0.88σ]

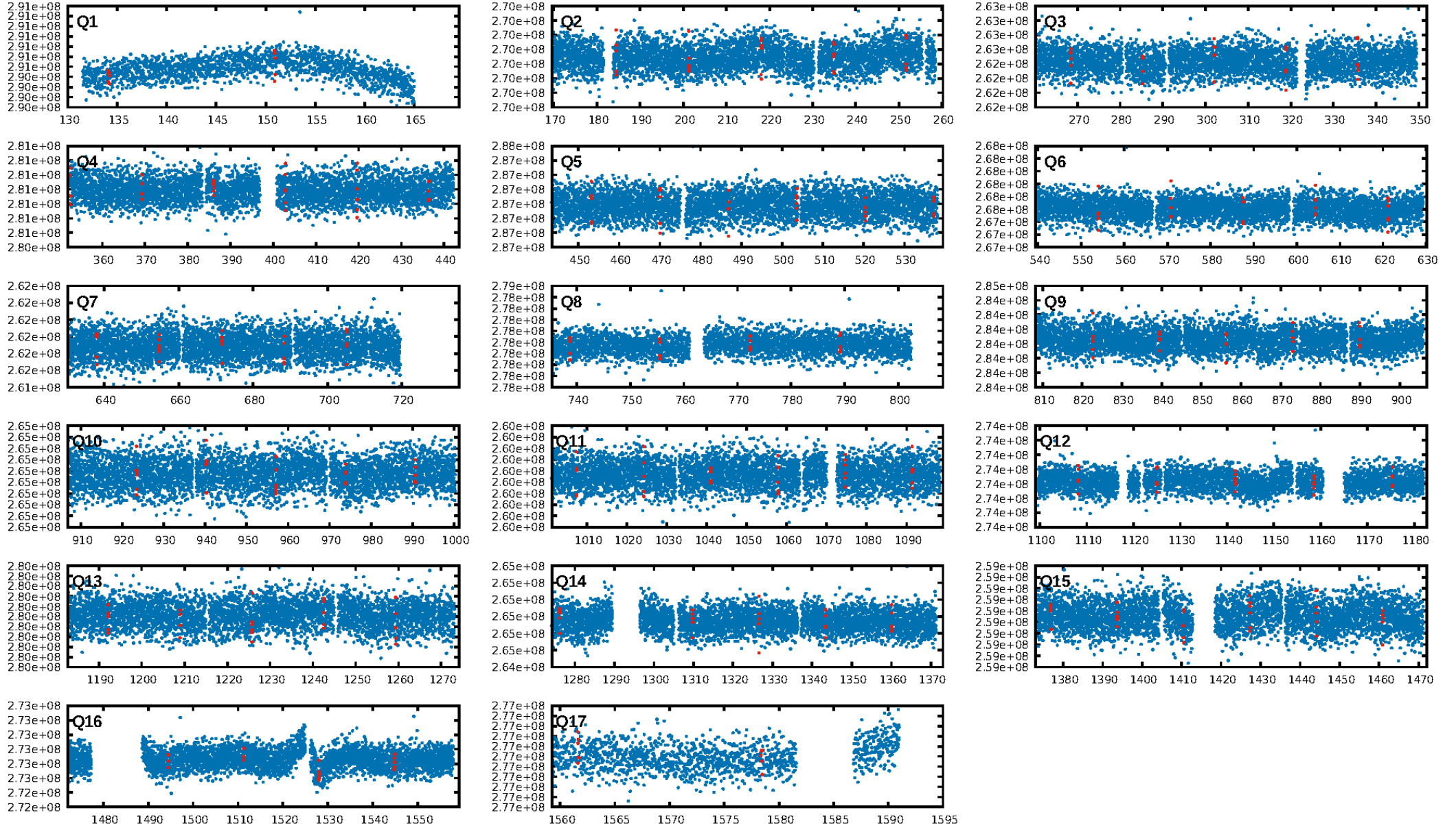
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [49.29σ]
LongPeriod-sig: 100.0% [5.47σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.8%
Bootstrap-pfa: 2.30e-21
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 1.464
Centroid-sig: 39.8%
Centroid-so: 1.430 arcsec [1.83σ]
OotOffset-rm: 1.697 arcsec [0.77σ]
KicOffset-rm: 1.634 arcsec [0.69σ]
OotOffset-st: 1/1/2/3 [7]
KicOffset-st: 1/1/2/3 [7]
DiffImageQuality-fgm: 0.29 [2/7]
DiffImageOverlap-fno: 0.00 [0/17]

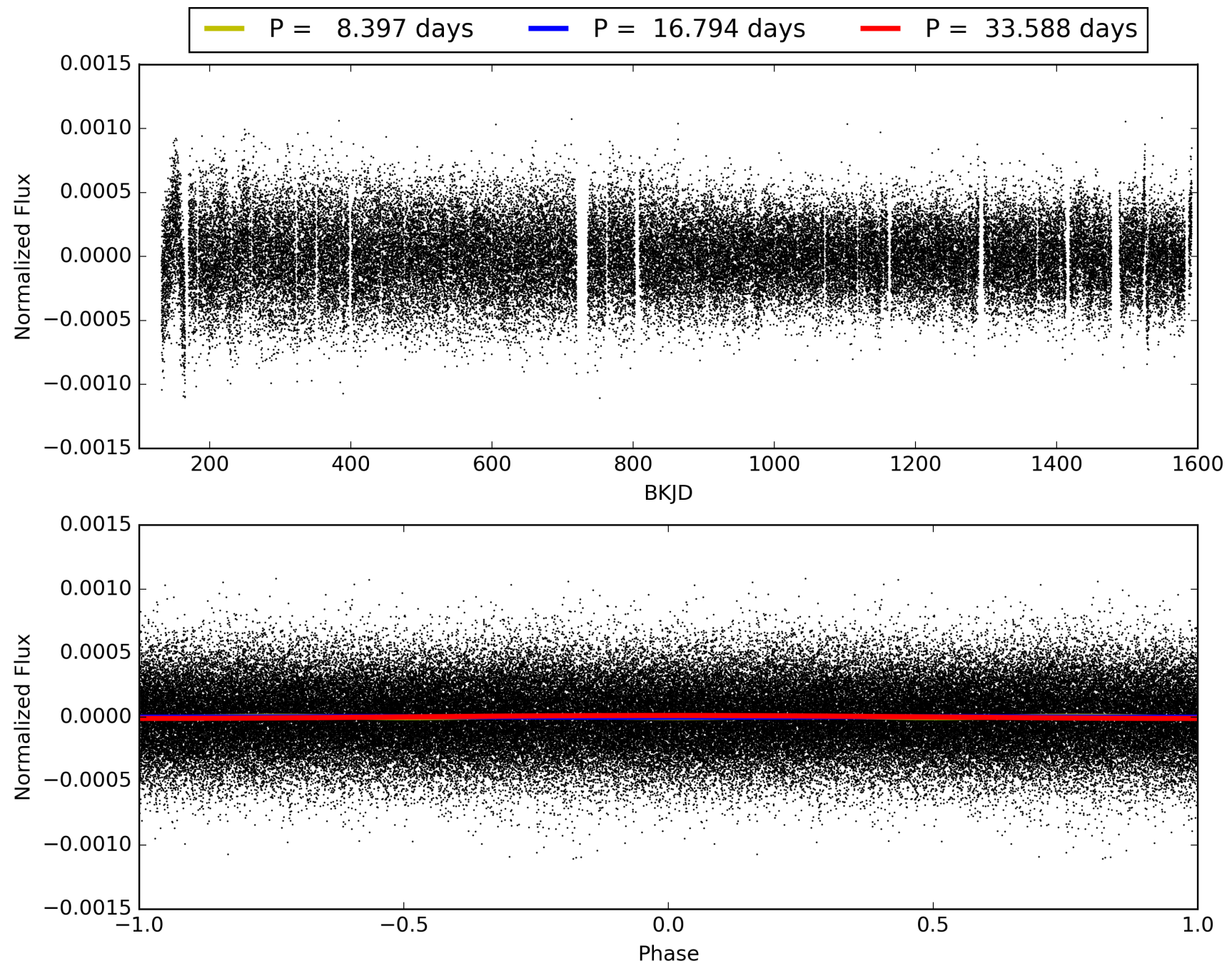
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:28:23 Z

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

TCE 005475668-04, PDC Light Curves

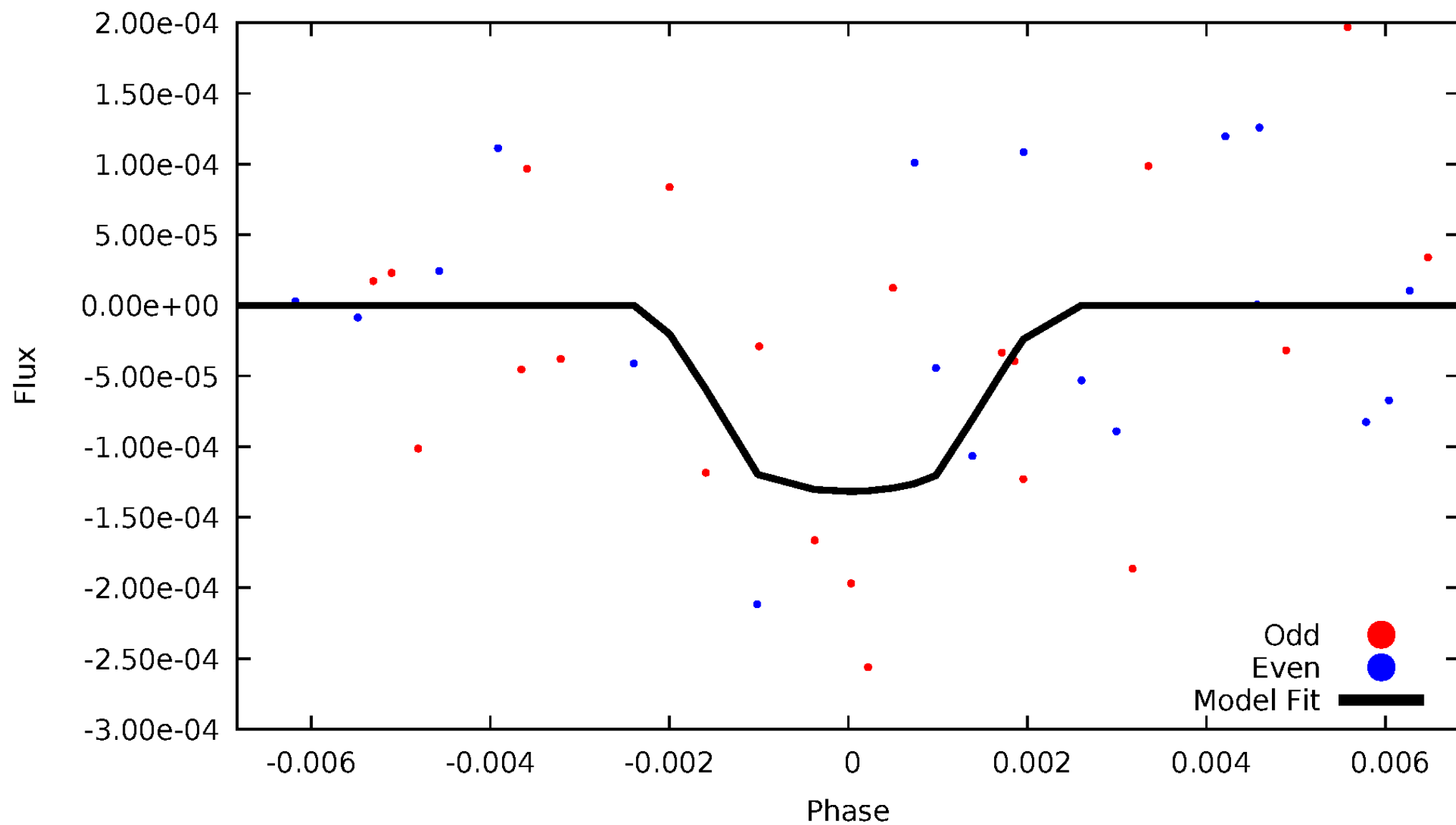


TCE 005475668-04



DV Odd/Even

TCE 005475668-04

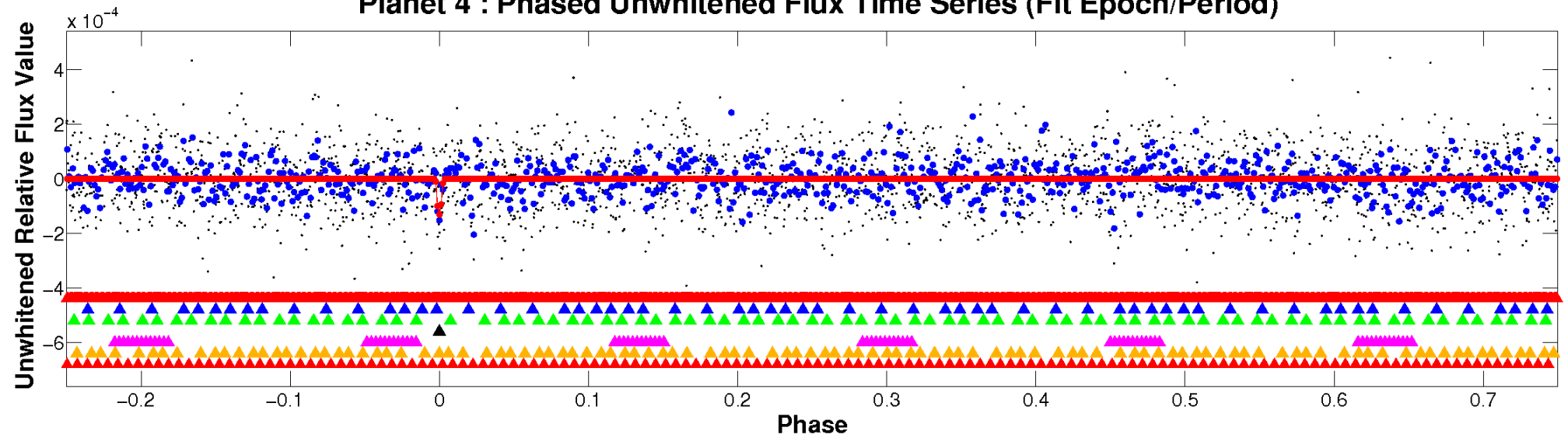


ALT Odd/Even

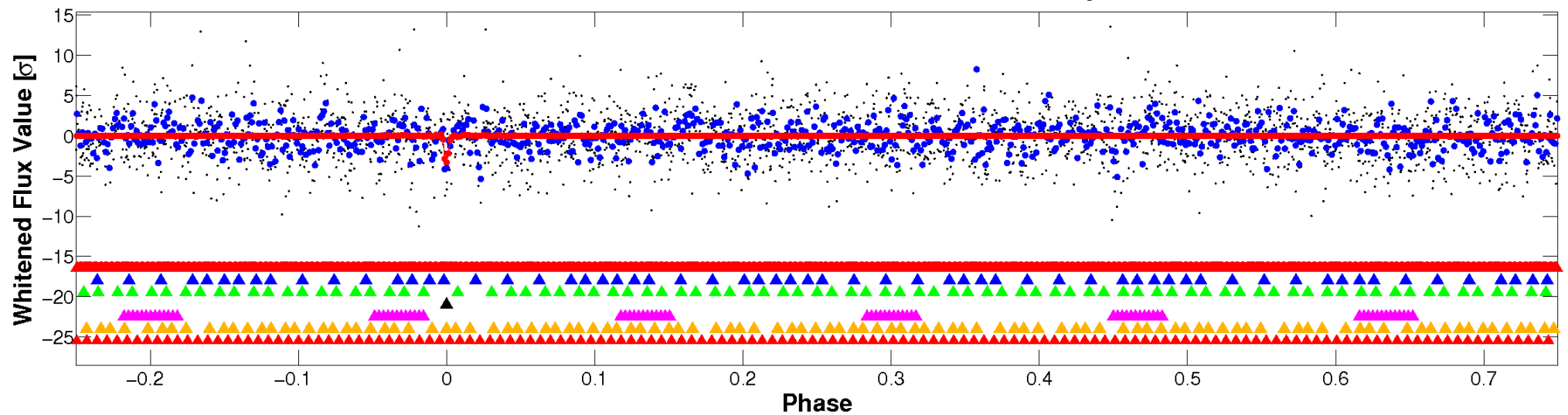
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

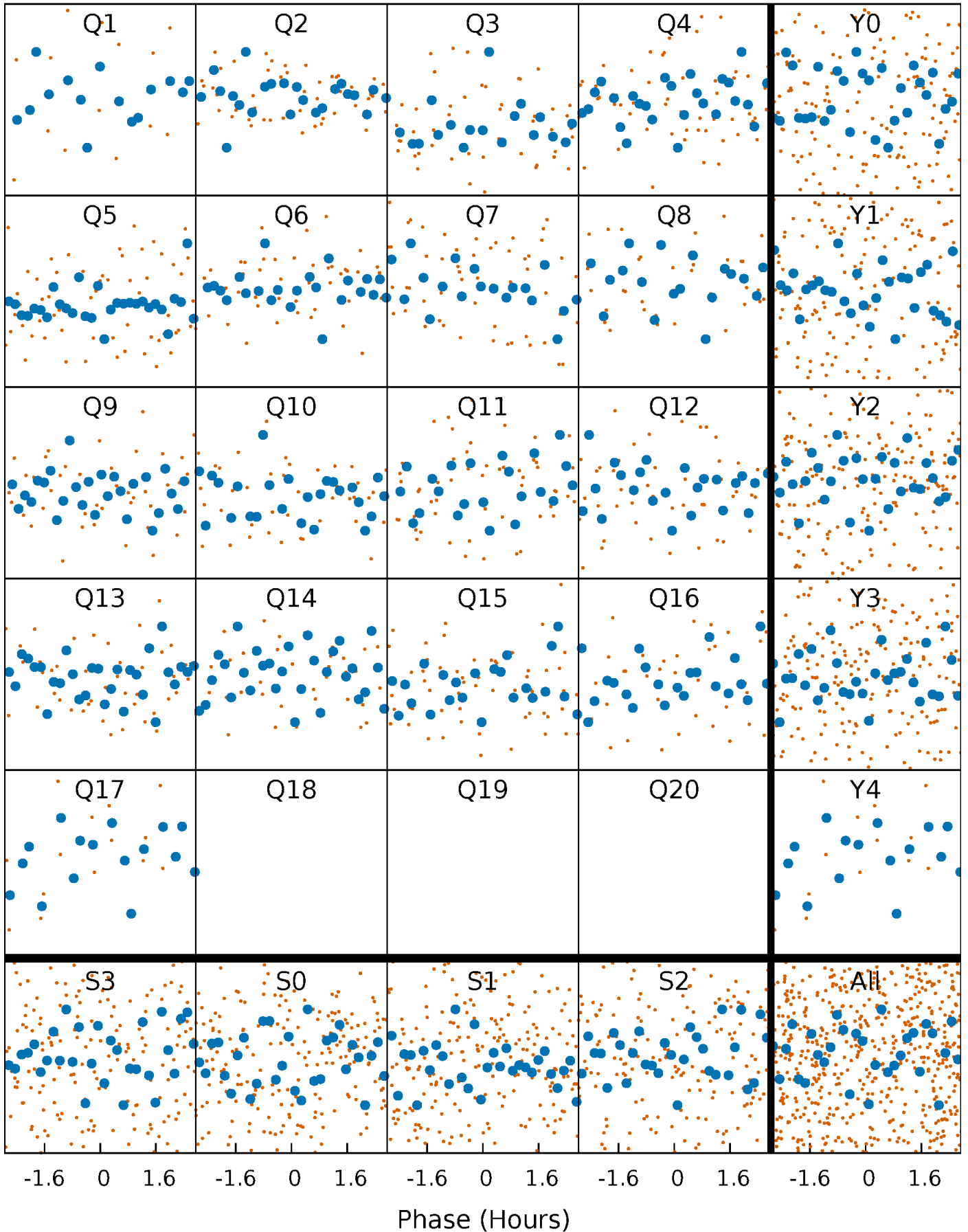


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



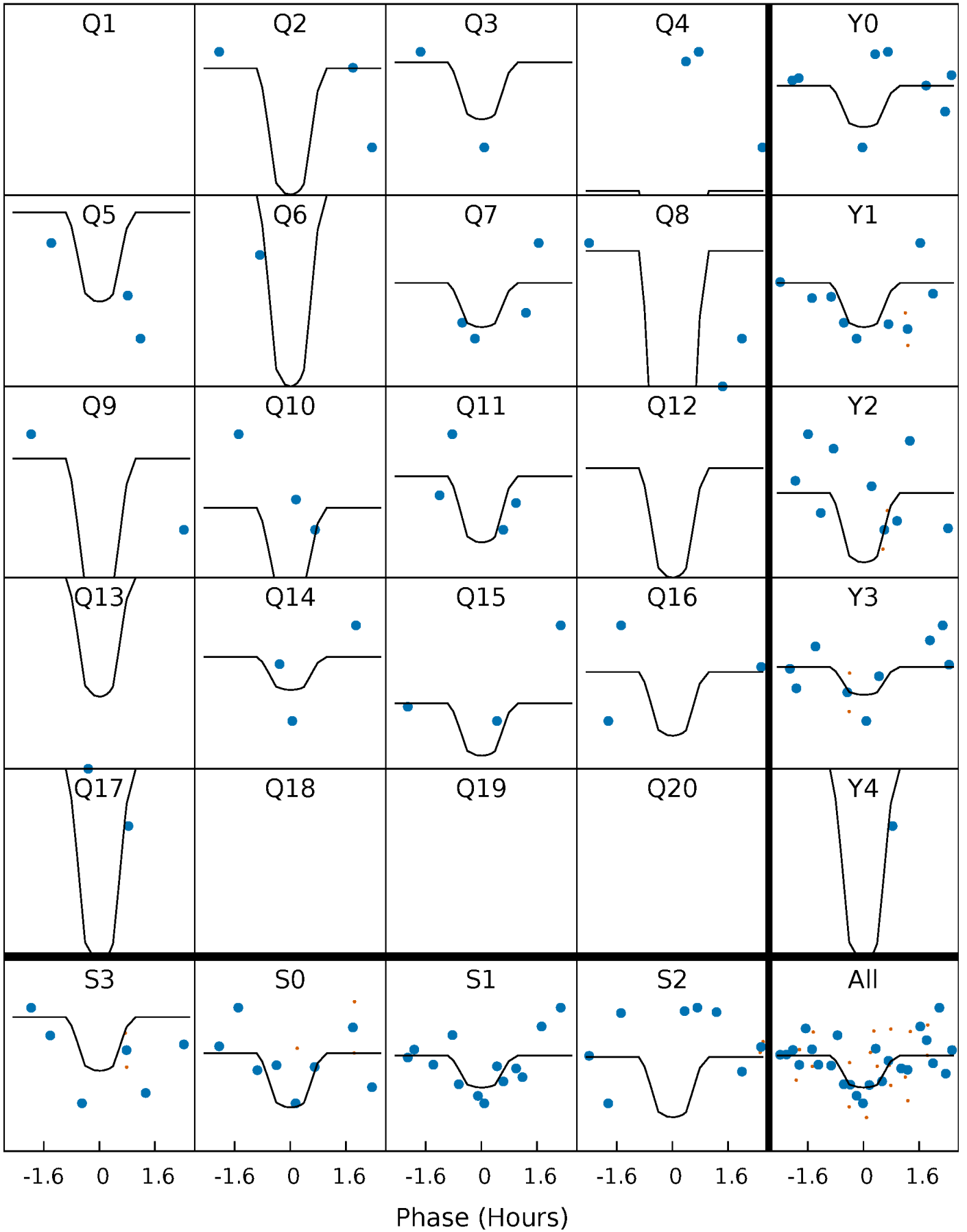
PDC Quarter-Phased Transit Curves

TCE 005475668-04 P= 16.794083 Days $T_0=134.128818$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005475668-04 P= 16.794083 Days $T_0=134.128818$ (BKJD)

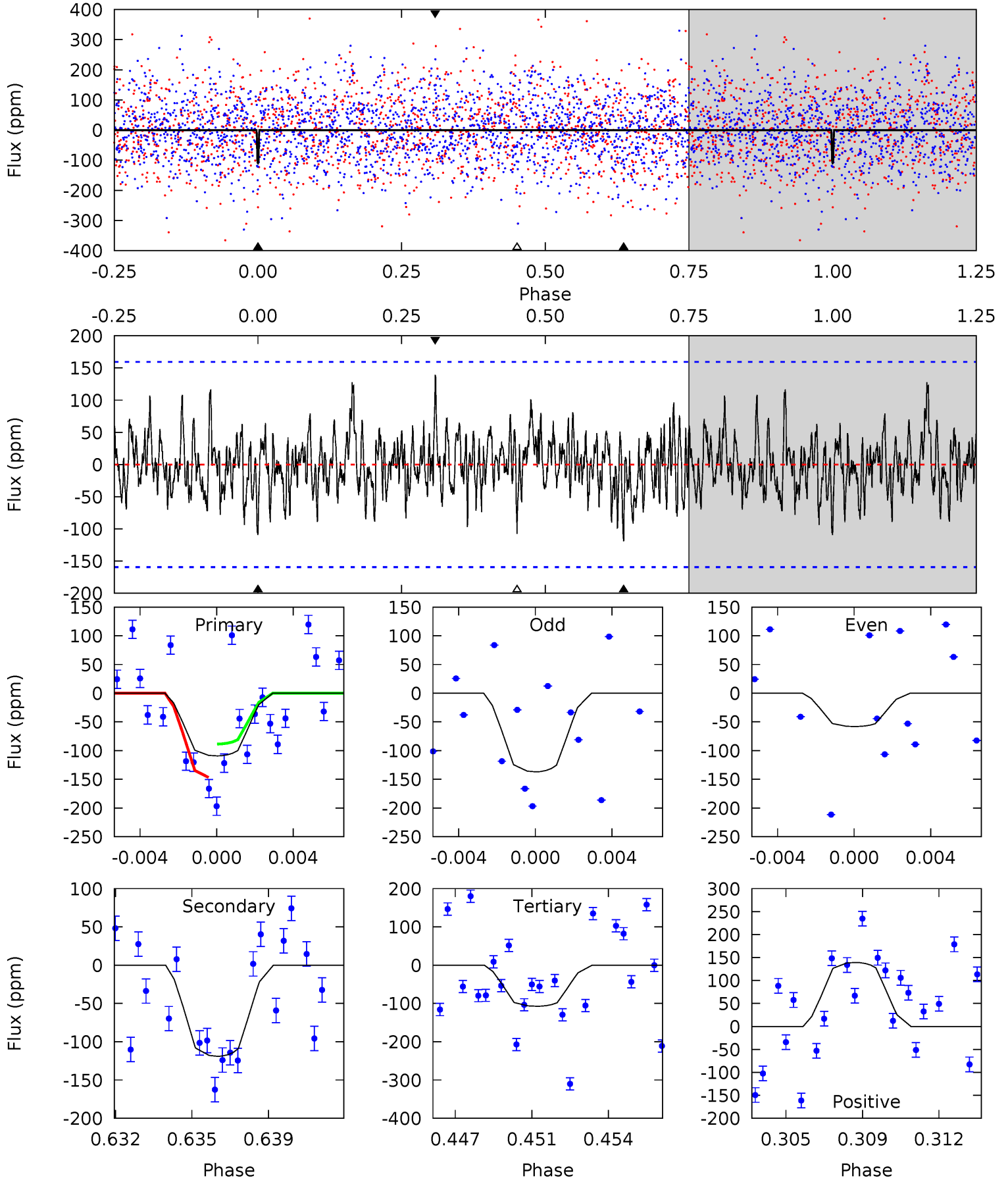


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005475668-04, P = 16.794083 Days, E = 117.334735 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.58	3.90	3.52	4.56	5.22	2.92	1.26	0.06	-0.98	0.38	-0.66	1.23	0.70	0.54	0.83



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005475668

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8211^{+226}_{-340}	$4.077^{+0.165}_{-0.150}$	$-0.180^{+0.250}_{-0.300}$	$2.013^{+0.462}_{-0.462}$	$1.763^{+0.146}_{-0.271}$	$0.304^{+0.266}_{-0.122}$
	+3%/-4%	+4%/-4%	+139%/-167%	+23%/-23%	+8%/-15%	+87%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005475668-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-119±31	$4.56^{+4.28}_{-3.12}$	1813^{+121}_{-131}	5613^{+5738}_{-1301}	72^{+615}_{-53}
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 $A_{\text{obs}} \gg 1.0$

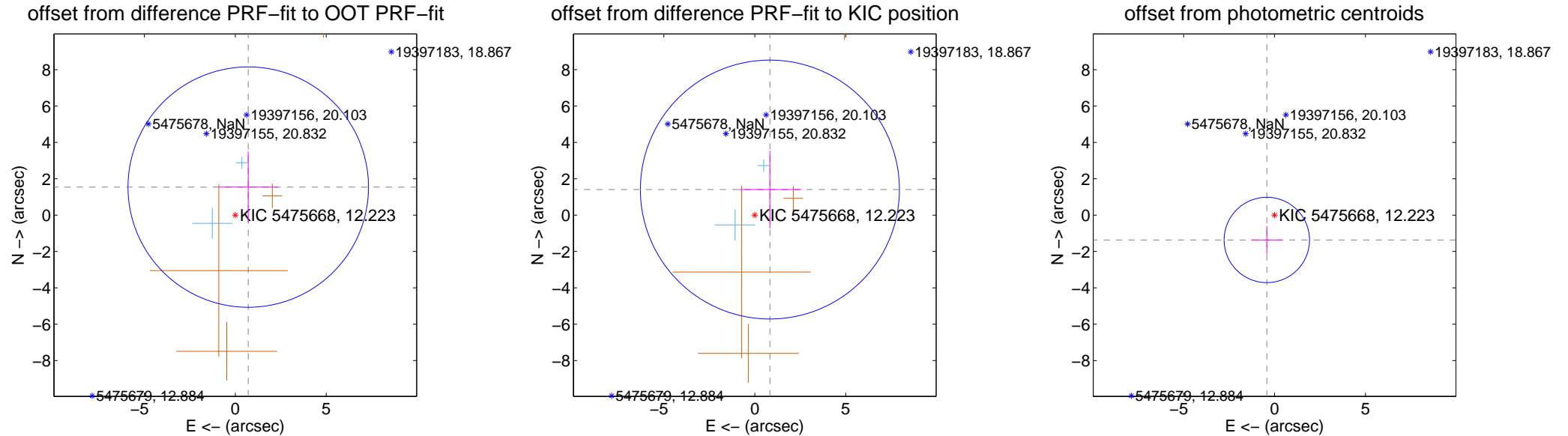
DV Centroid Data

Supplemental centroid analysis for 005475668-04. Kepler magnitude: 12.22. Transit SNR 9.27

There are 2 quarters with good PRF difference image offsets

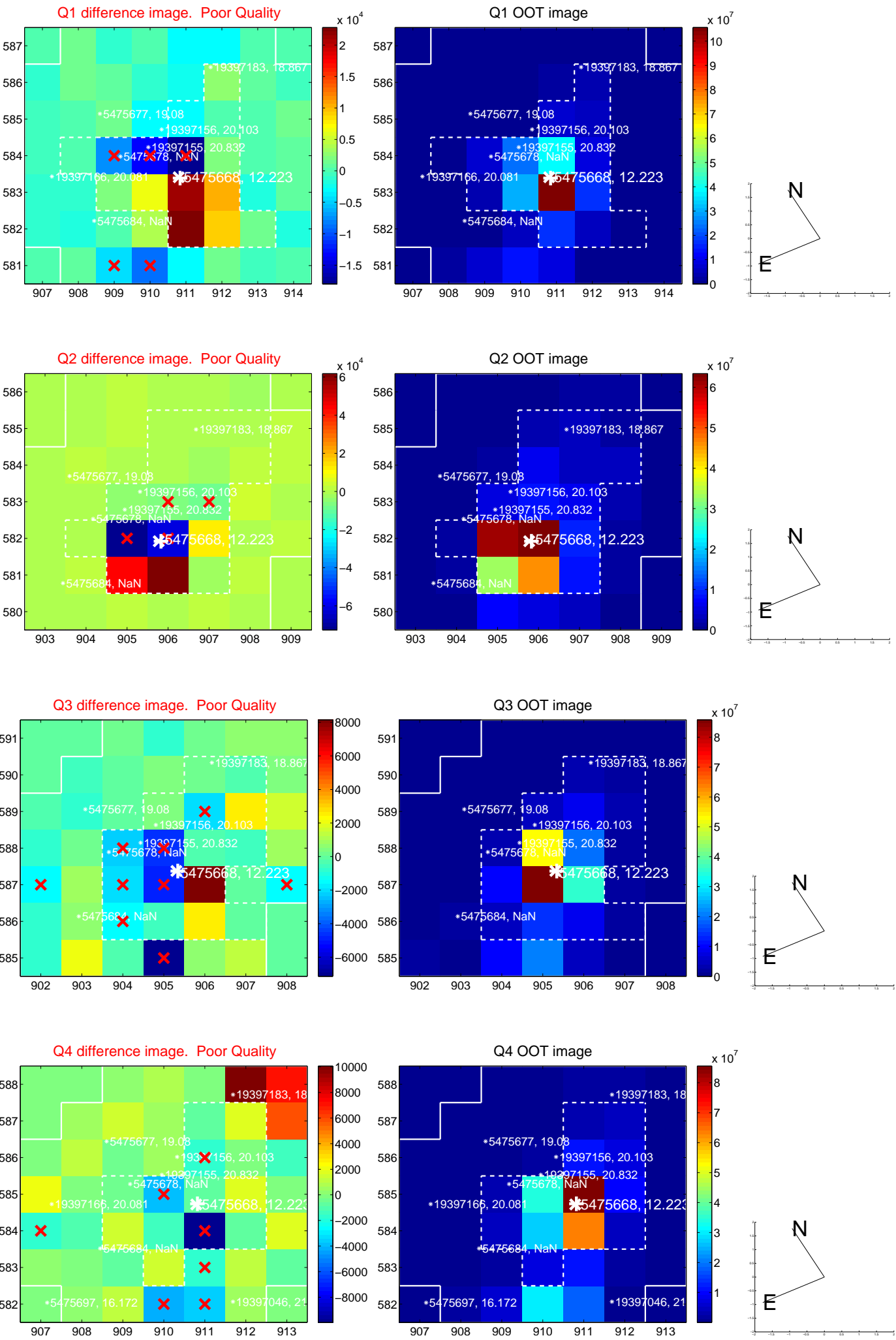
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.697 ± 2.203	0.77	-0.711 ± 1.618	1.541 ± 1.958
PRF-fit source offset from KIC position	1.634 ± 2.373	0.69	-0.831 ± 1.717	1.407 ± 2.137
photometric centroid source offset	1.43 ± 0.78	1.83	0.42 ± 0.86	-1.37 ± 0.77

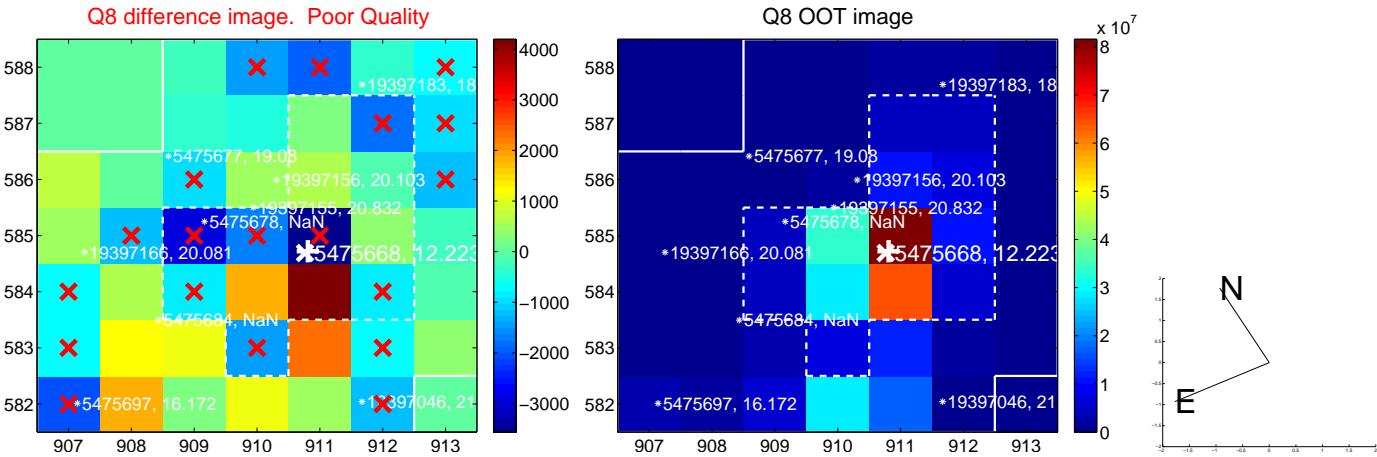
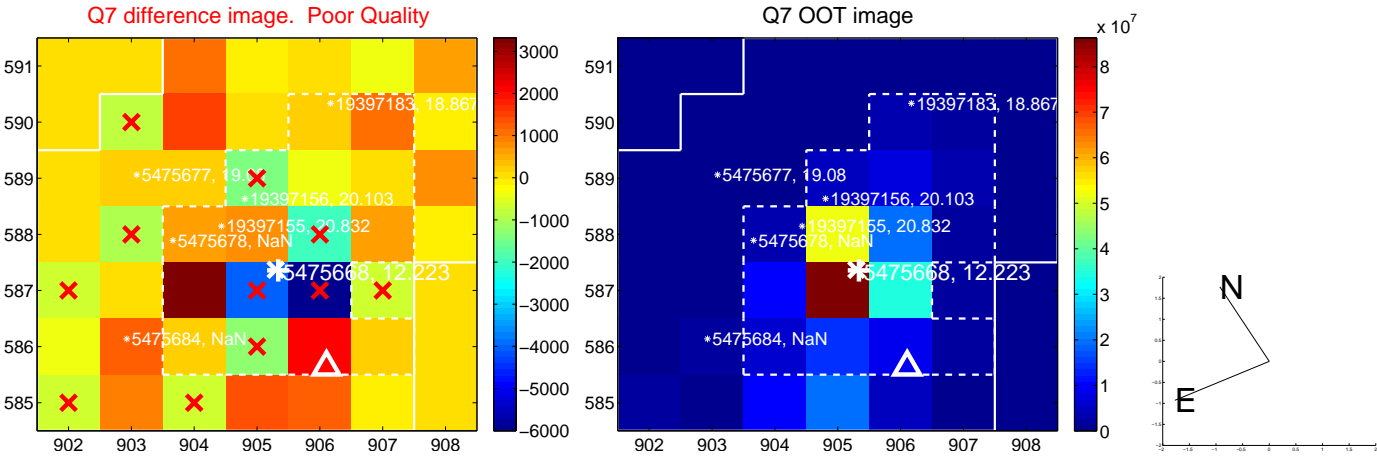
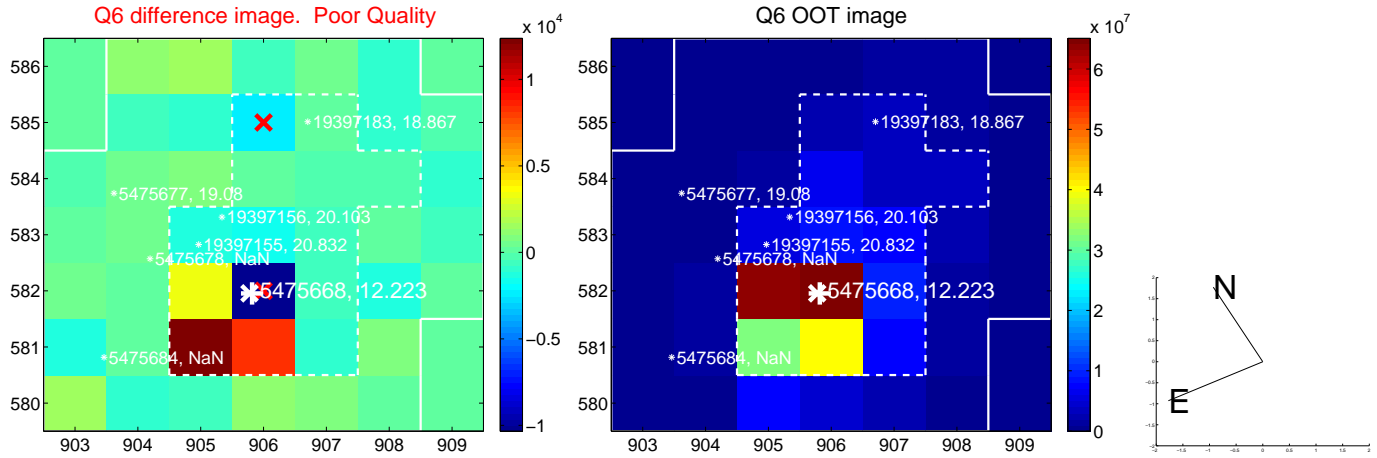
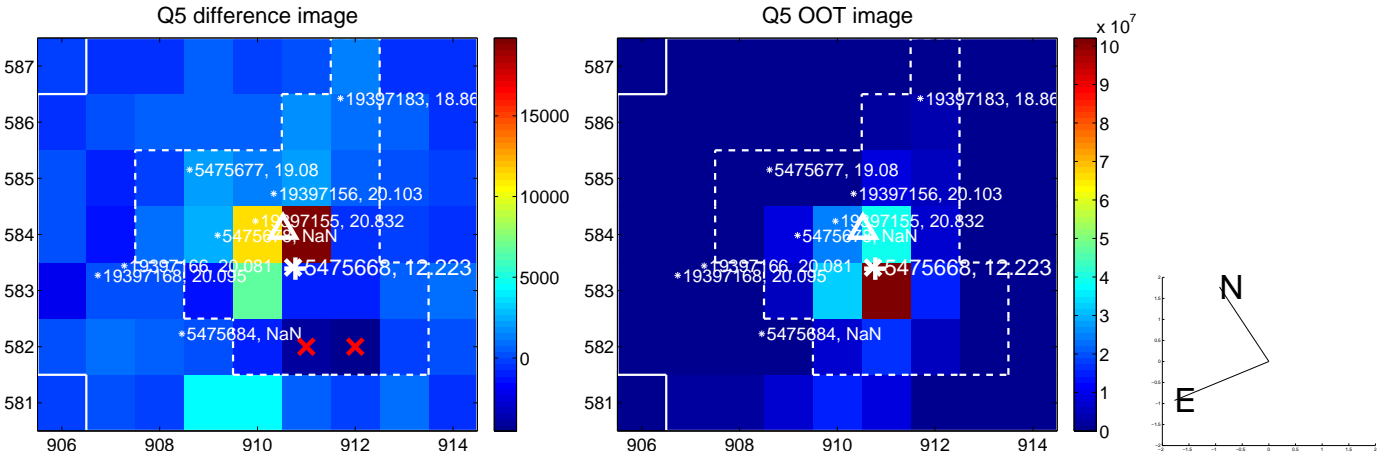


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

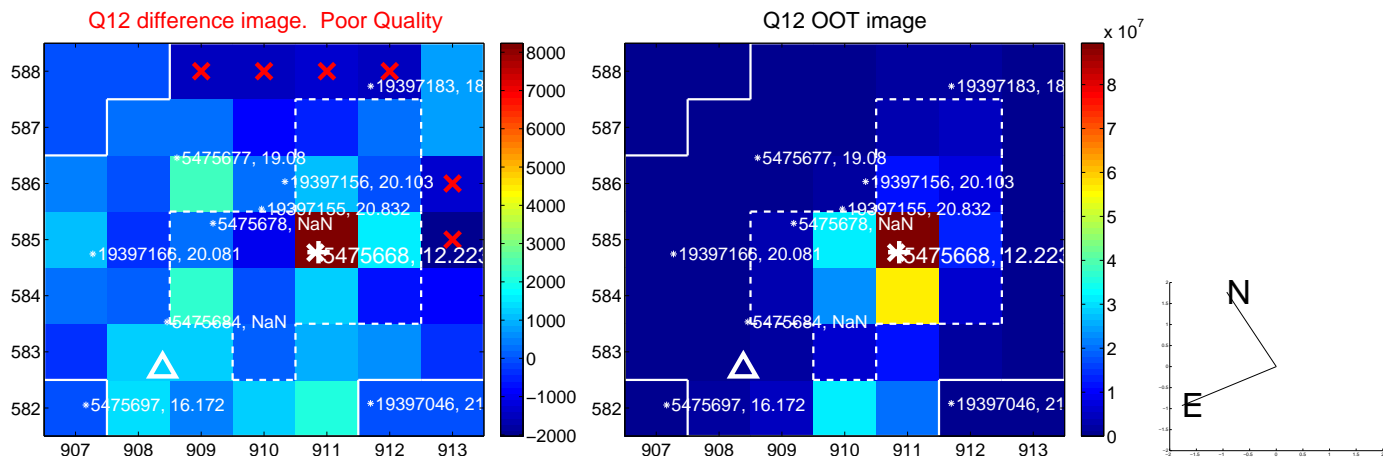
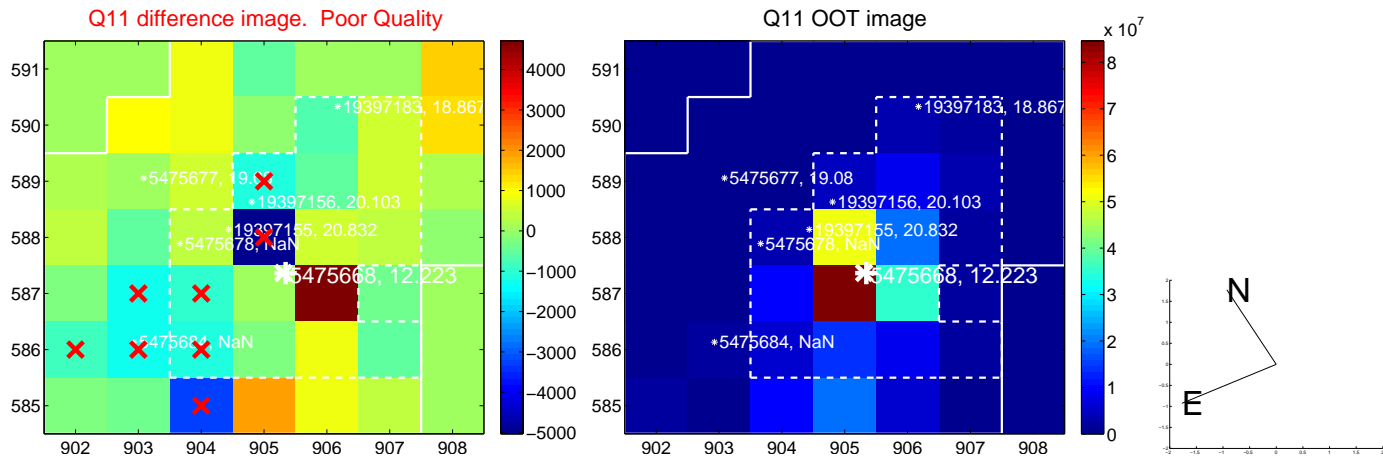
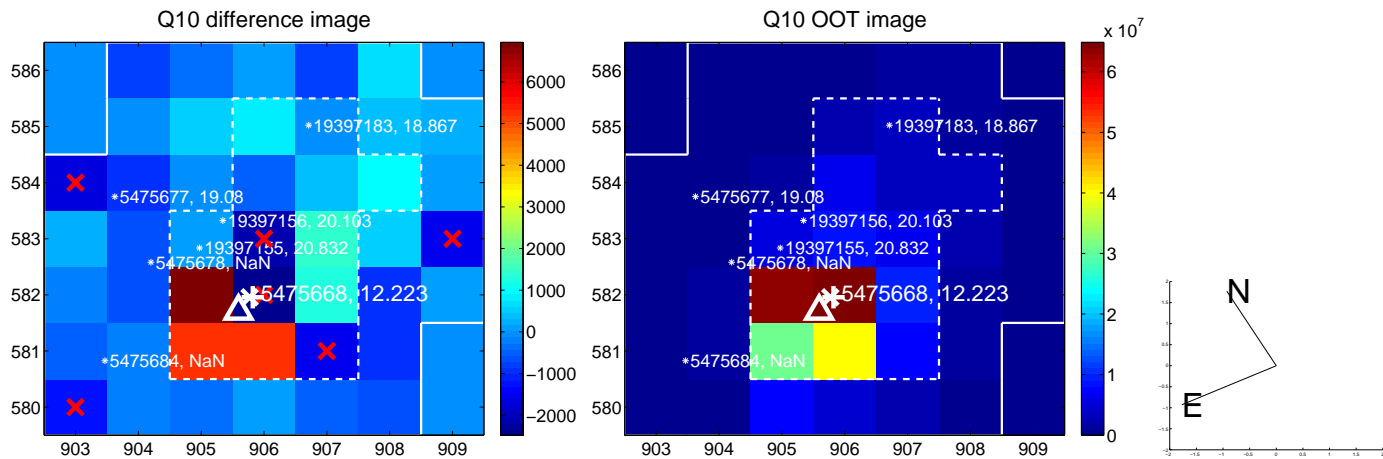
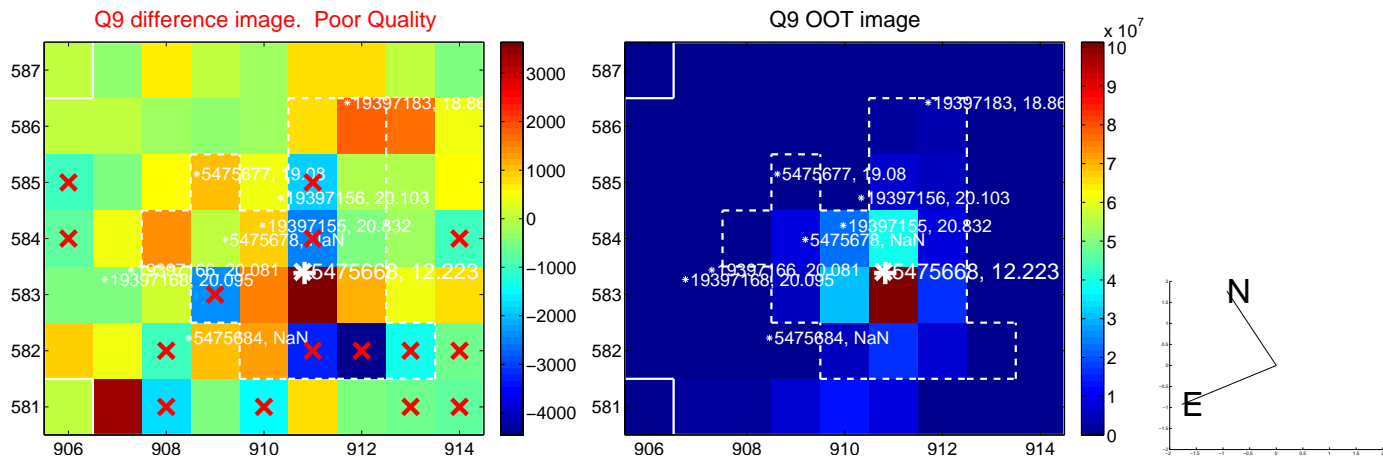
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



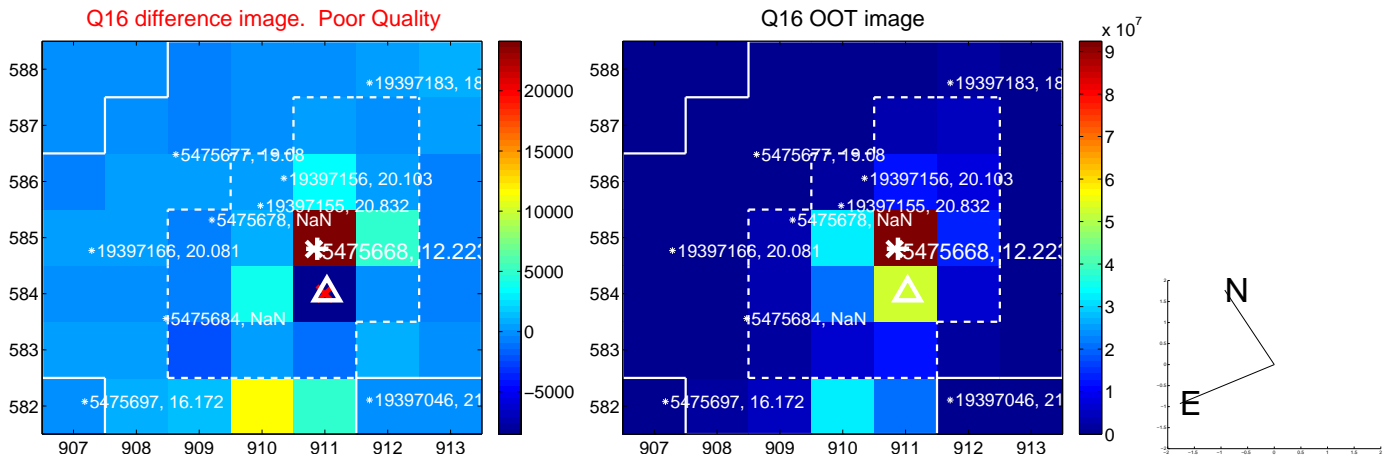
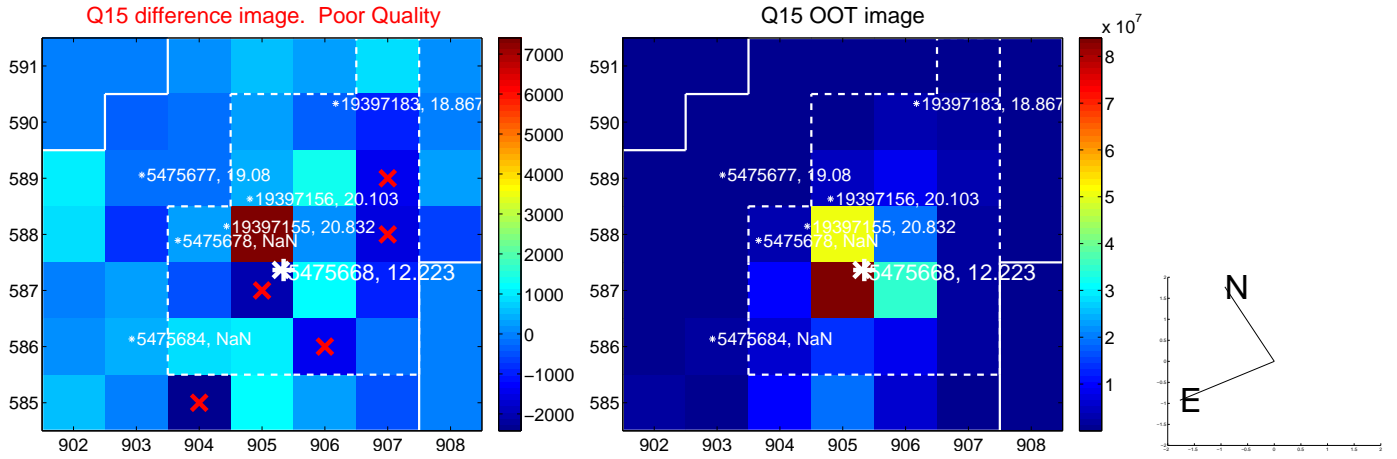
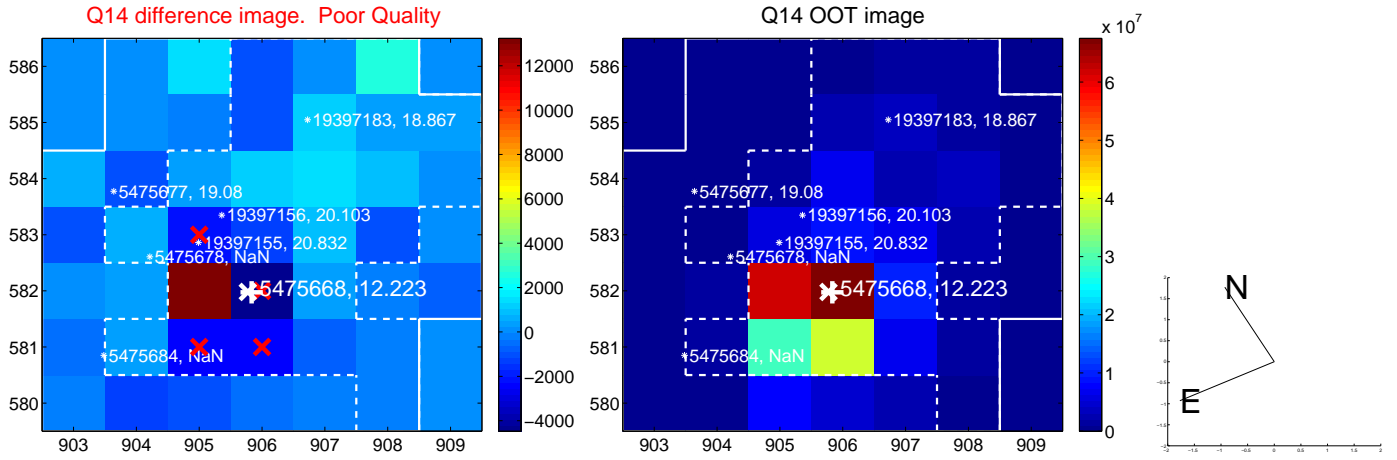
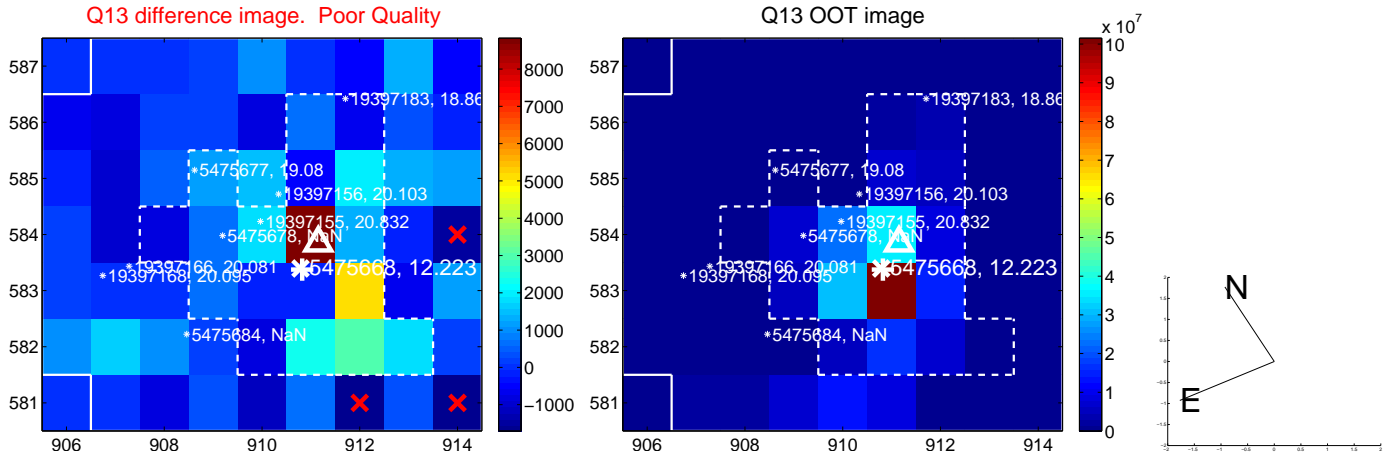
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



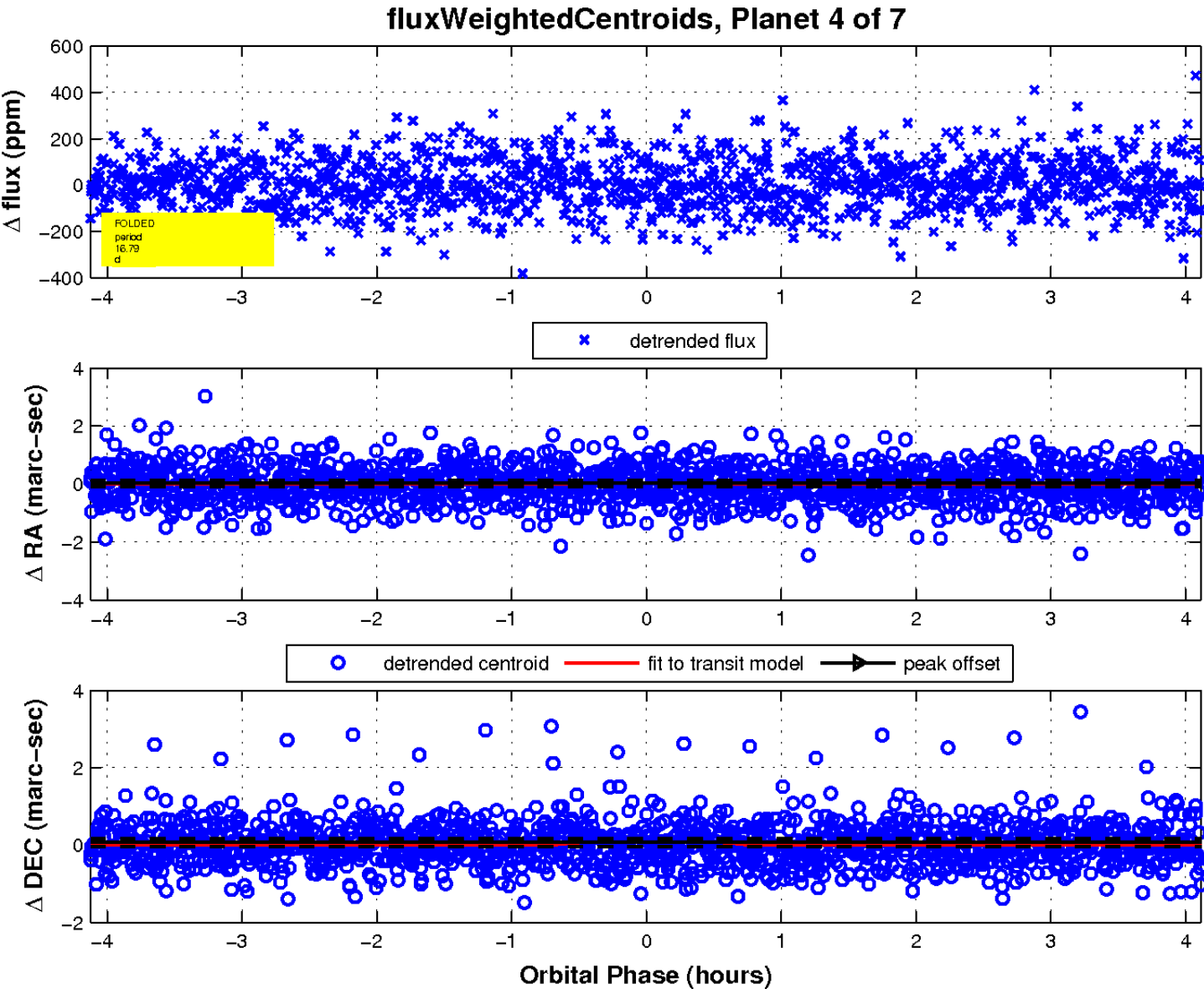
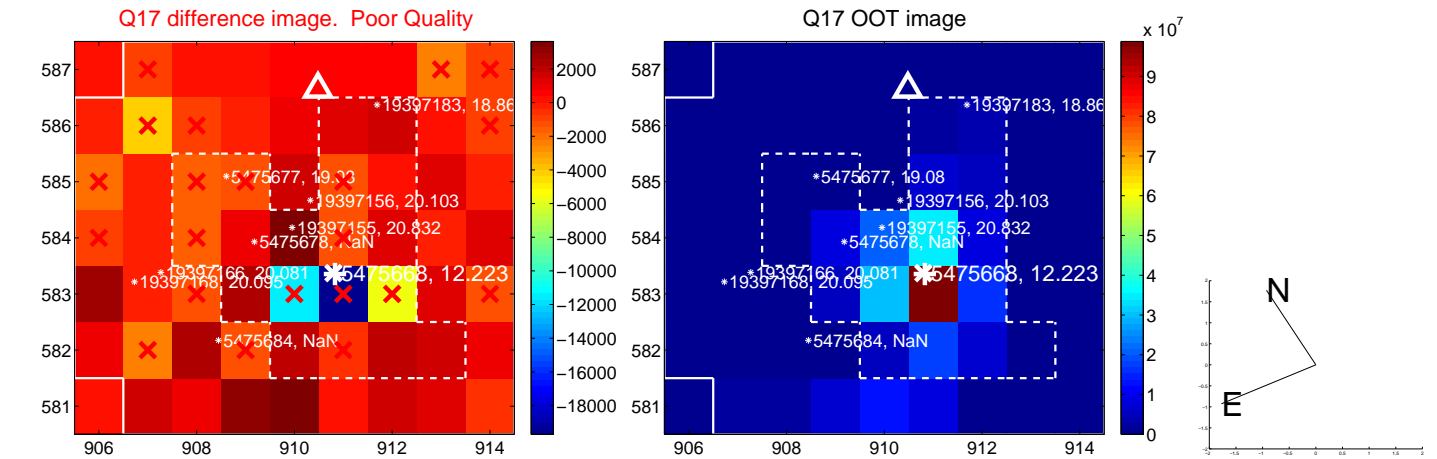
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

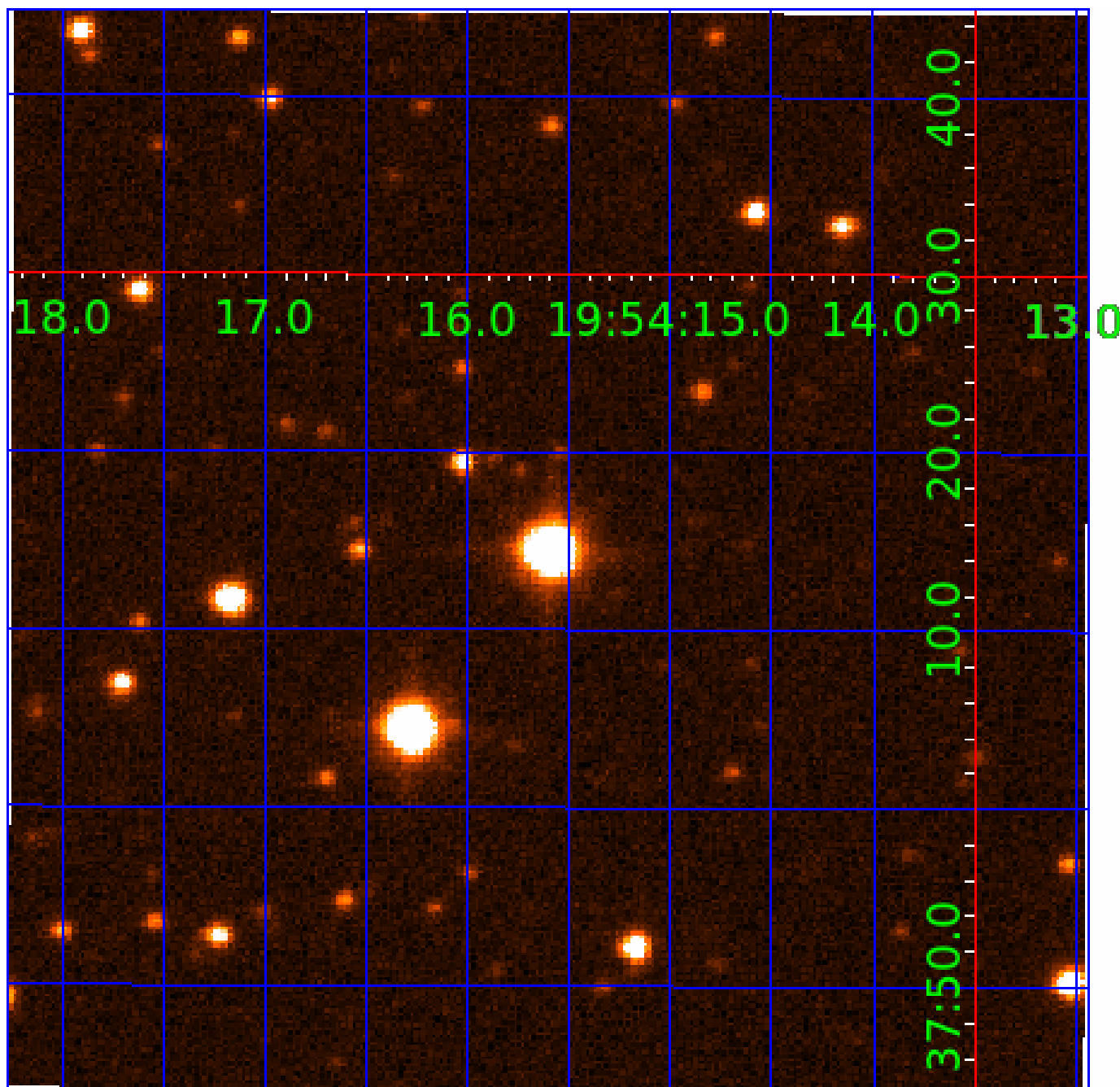


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005475668

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})
005475668-01	OBS	No	0.628755	132.180580	4.4	4.649	9.4	4.4	2.01	8211	0.43	54751.94
005475668-02	OBS	No	23.046835	153.053781	182.2	1.423	13.8	14.1	2.01	8211	2.85	449.67
005475668-03	OBS	No	17.179508	134.861136	202.2	0.982	12.6	14.4	2.01	8211	3.10	665.31
005475668-04	OBS	No	16.794083	134.128818	131.7	1.375	12.3	9.3	2.01	8211	2.60	685.75
005475668-06	OBS	No	13.574715	138.475006	195.5	0.752	12.1	12.3	2.01	8211	2.97	910.75
005475668-07	OBS	No	6.968977	137.476932	180.3	0.705	8.1	13.1	2.01	8211	2.85	2215.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475668-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005475668-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

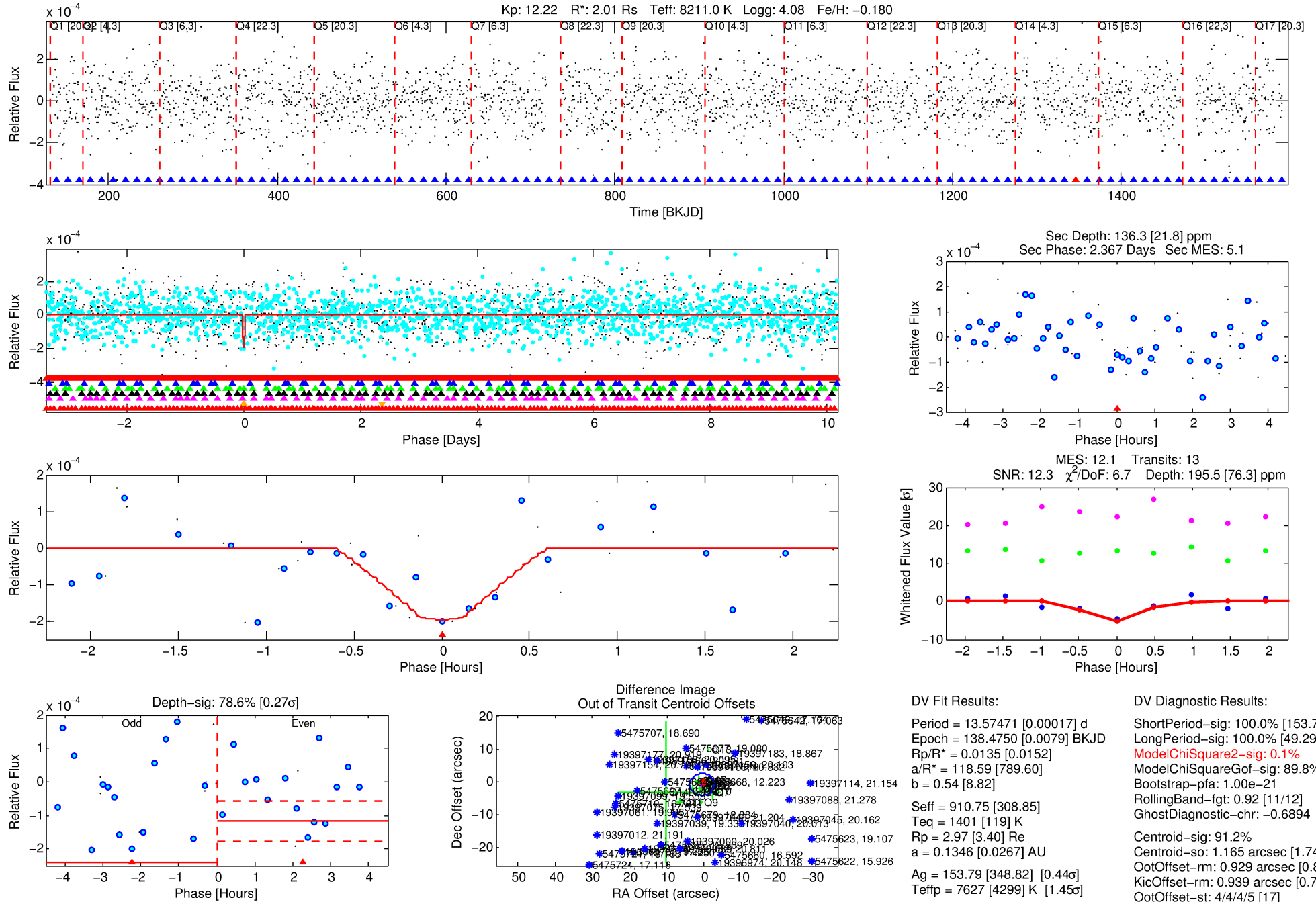
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475668-06

No Significant Match Found

DV One-Page Summary

KIC: 5475668 Candidate: 6 of 7 Period: 13.575 d



DV Fit Results:

Period = 13.57471 [0.00017] d
Epoch = 138.4750 [0.0079] BKJD
Rp/R* = 0.0135 [0.0152]
a/R* = 118.59 [789.60]
b = 0.54 [8.82]
Seff = 910.75 [308.85]
Teq = 1401 [119] K
Rp = 2.97 [3.40] Re
a = 0.1346 [0.0267] AU
Ag = 153.79 [348.82] [0.44 σ]
Teffp = 7627 [4299] K [1.45 σ]

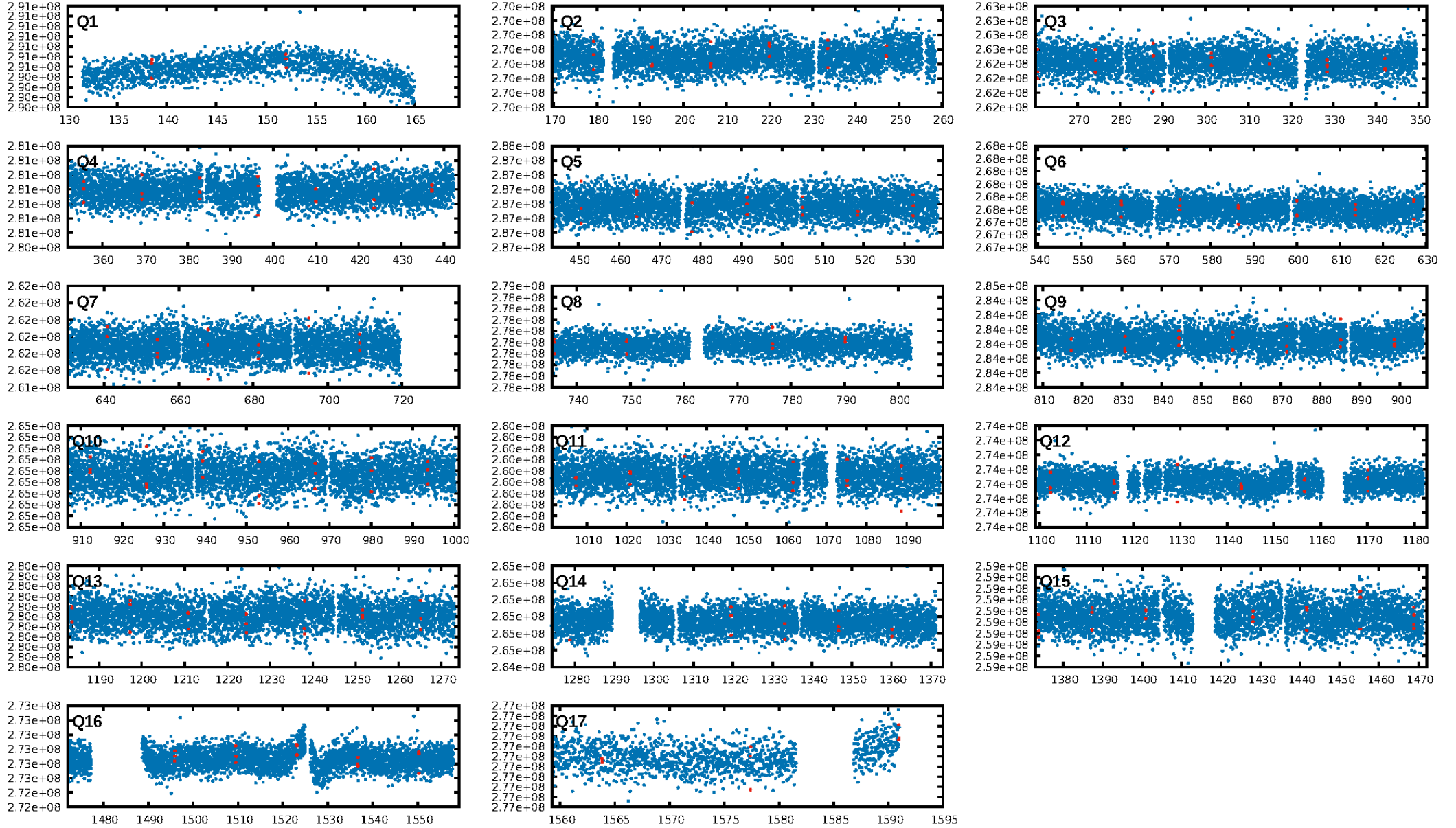
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [153.79 σ]
LongPeriod-sig: 100.0% [49.29 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 89.8%
Bootstrap-pfa: 1.00e-21
RollingBand-fgt: 0.92 [11/12]
GhostDiagnostic-chr: -0.6894
Centroid-sig: 91.2%
Centroid-so: 1.165 arcsec [1.74 σ]
OotOffset-rm: 0.929 arcsec [0.84 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.939 arcsec [0.79 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 0.00 [0/17]

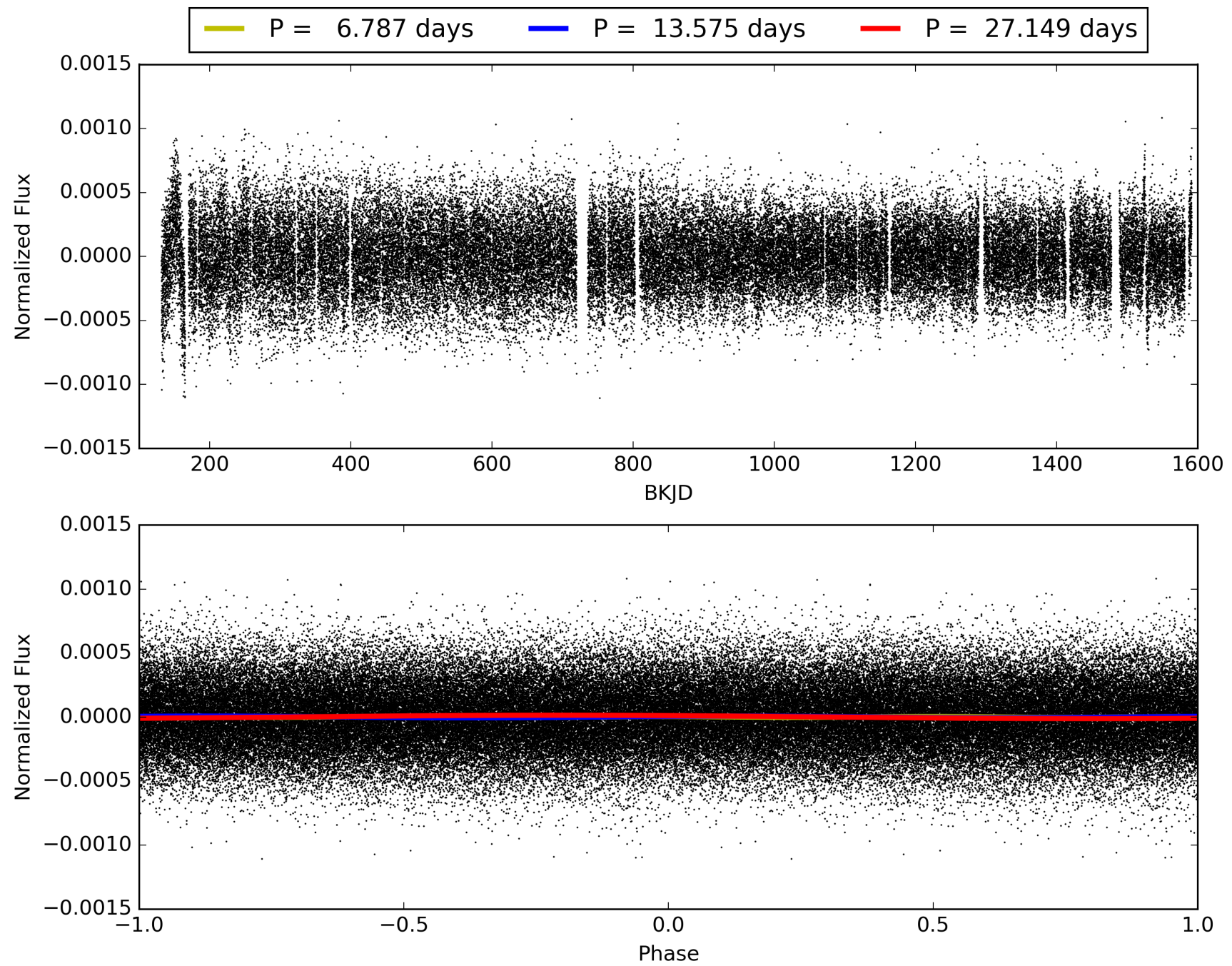
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:28:30 Z

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

TCE 005475668-06, PDC Light Curves

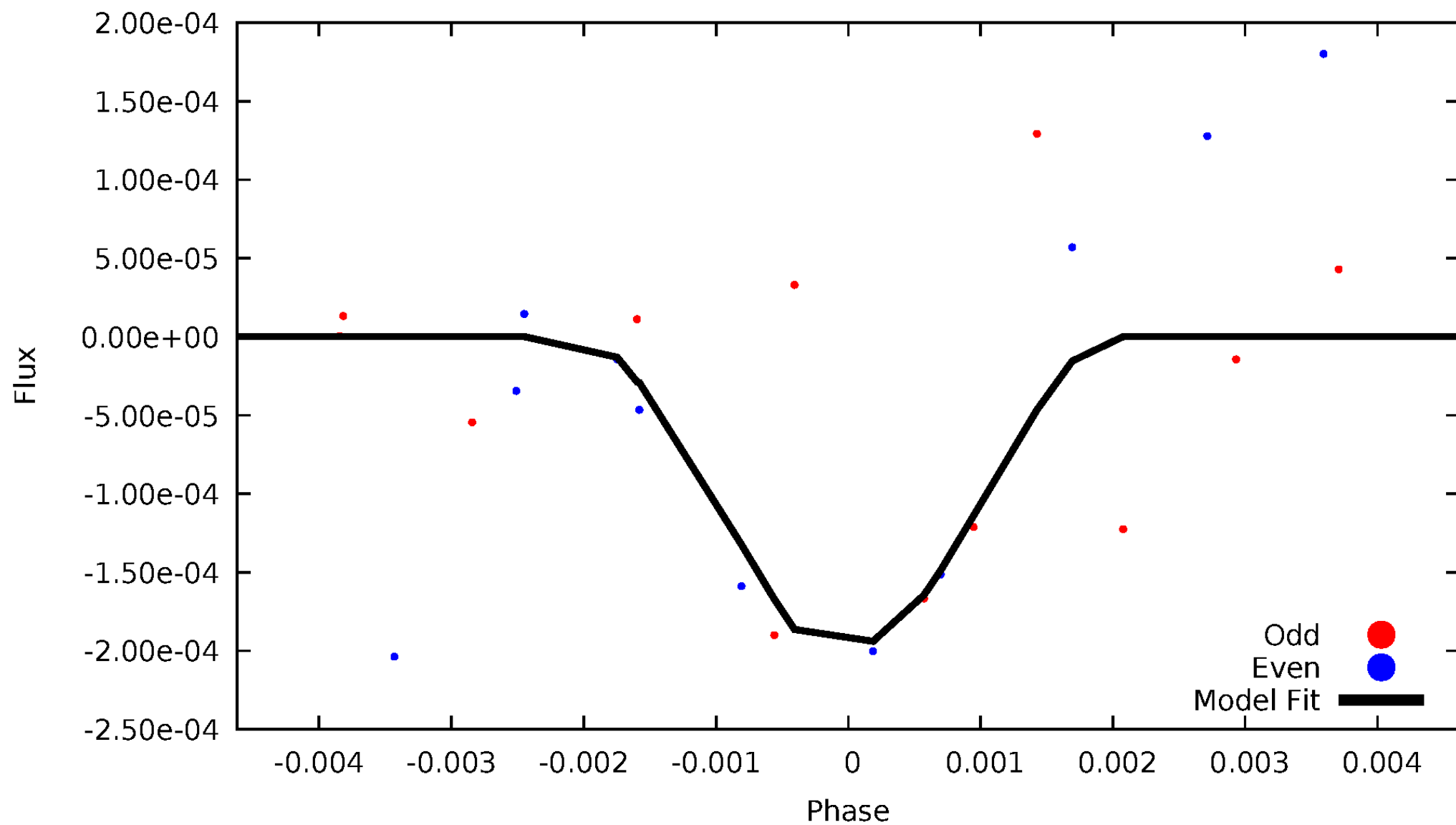


TCE 005475668-06



DV Odd/Even

TCE 005475668-06

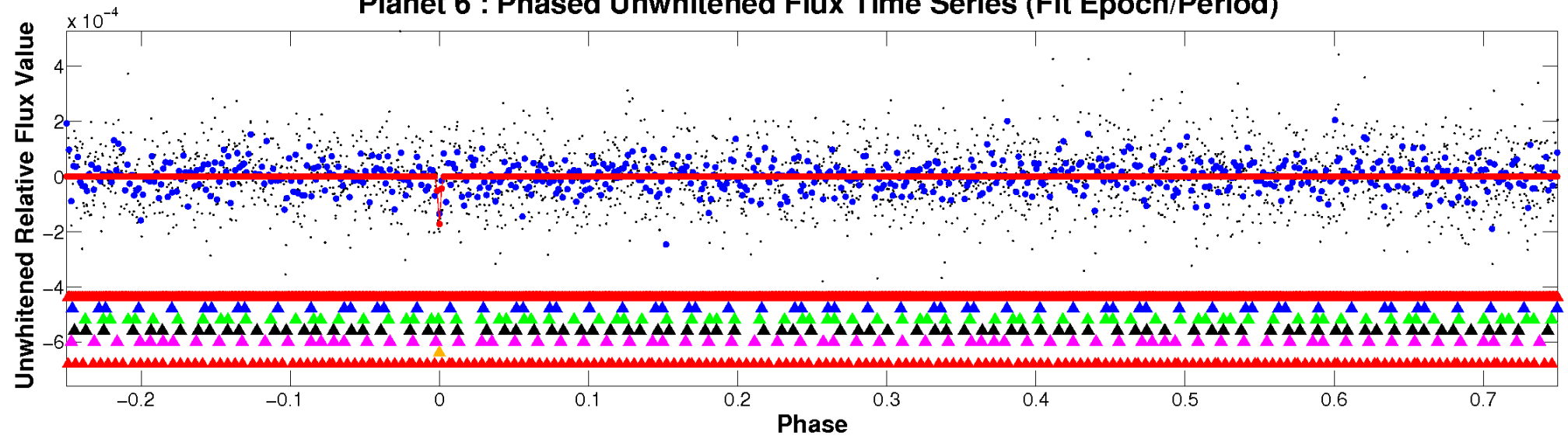


ALT Odd/Even

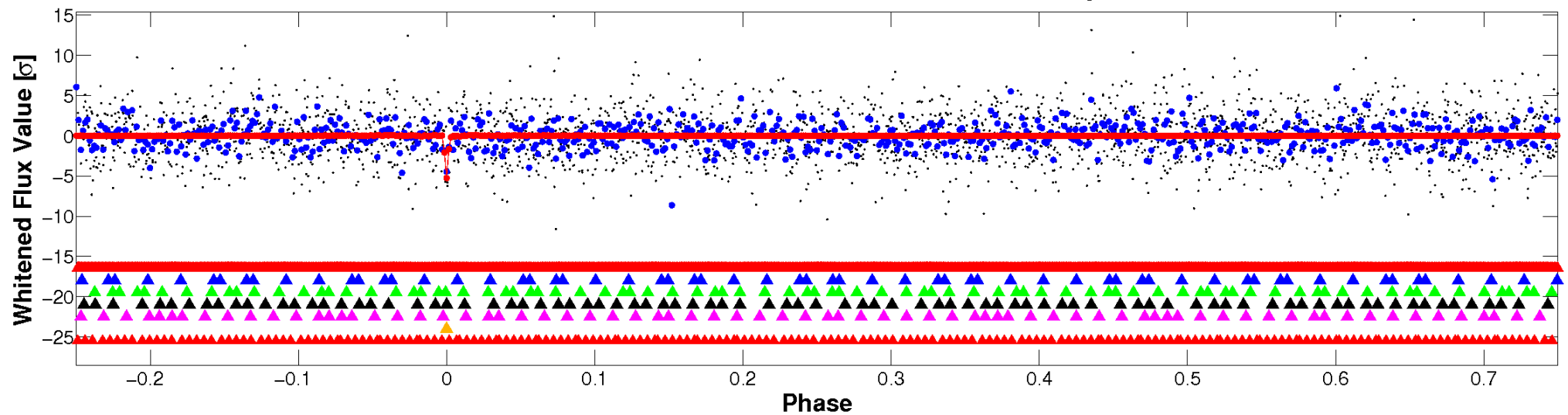
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

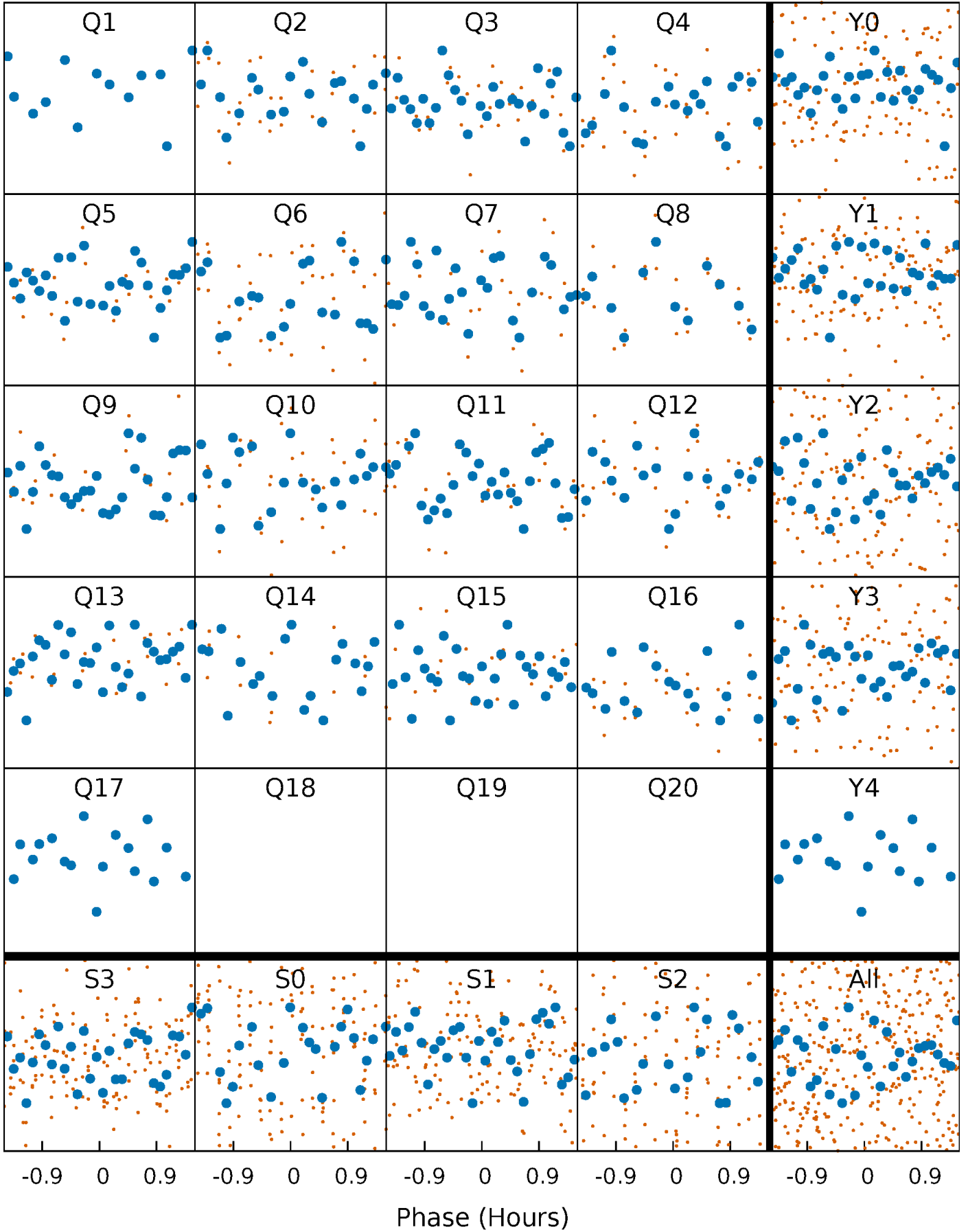


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



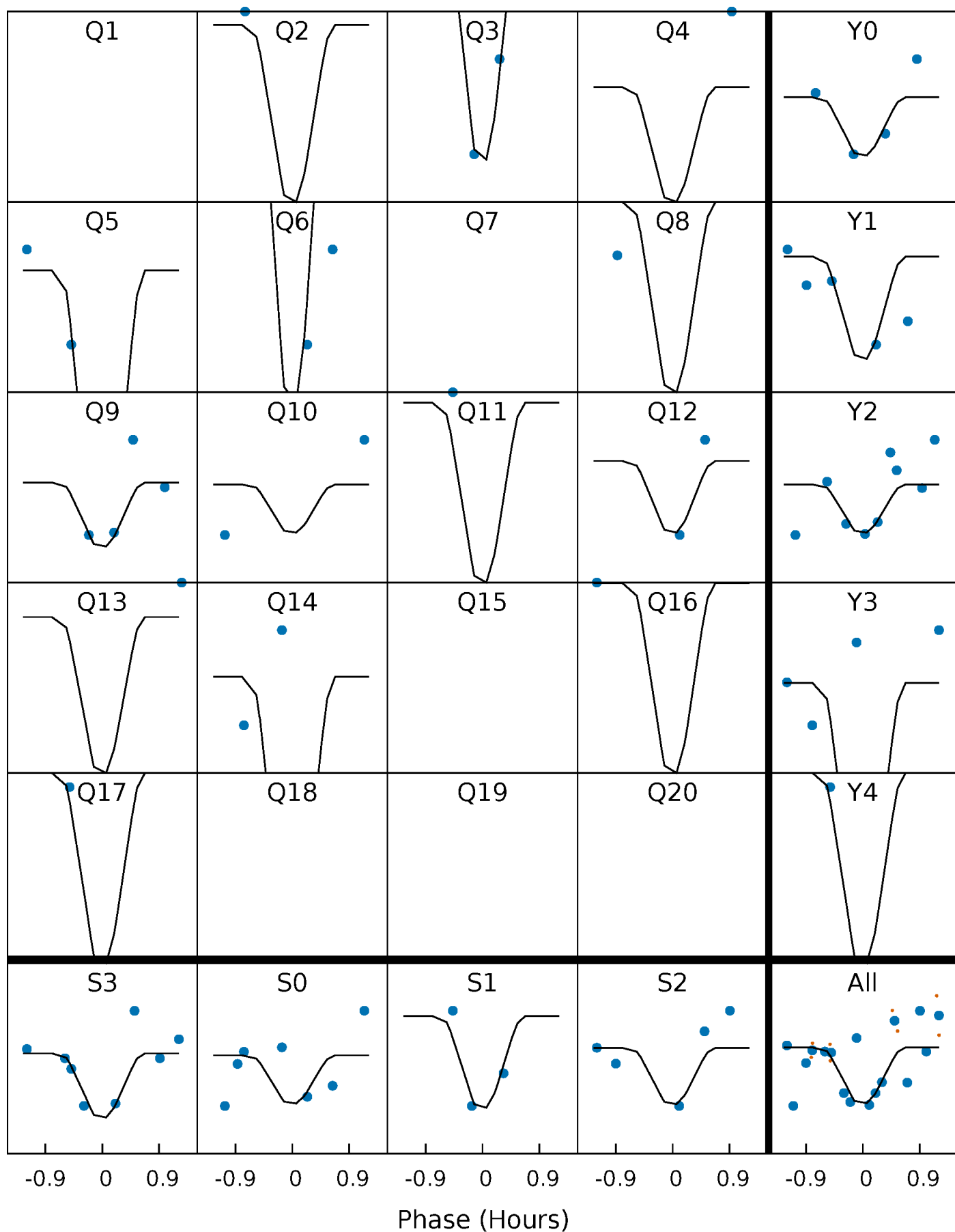
PDC Quarter-Phased Transit Curves

TCE 005475668-06 P= 13.574715 Days $T_0=138.475006$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005475668-06 P= 13.574715 Days $T_0=138.475006$ (BKJD)

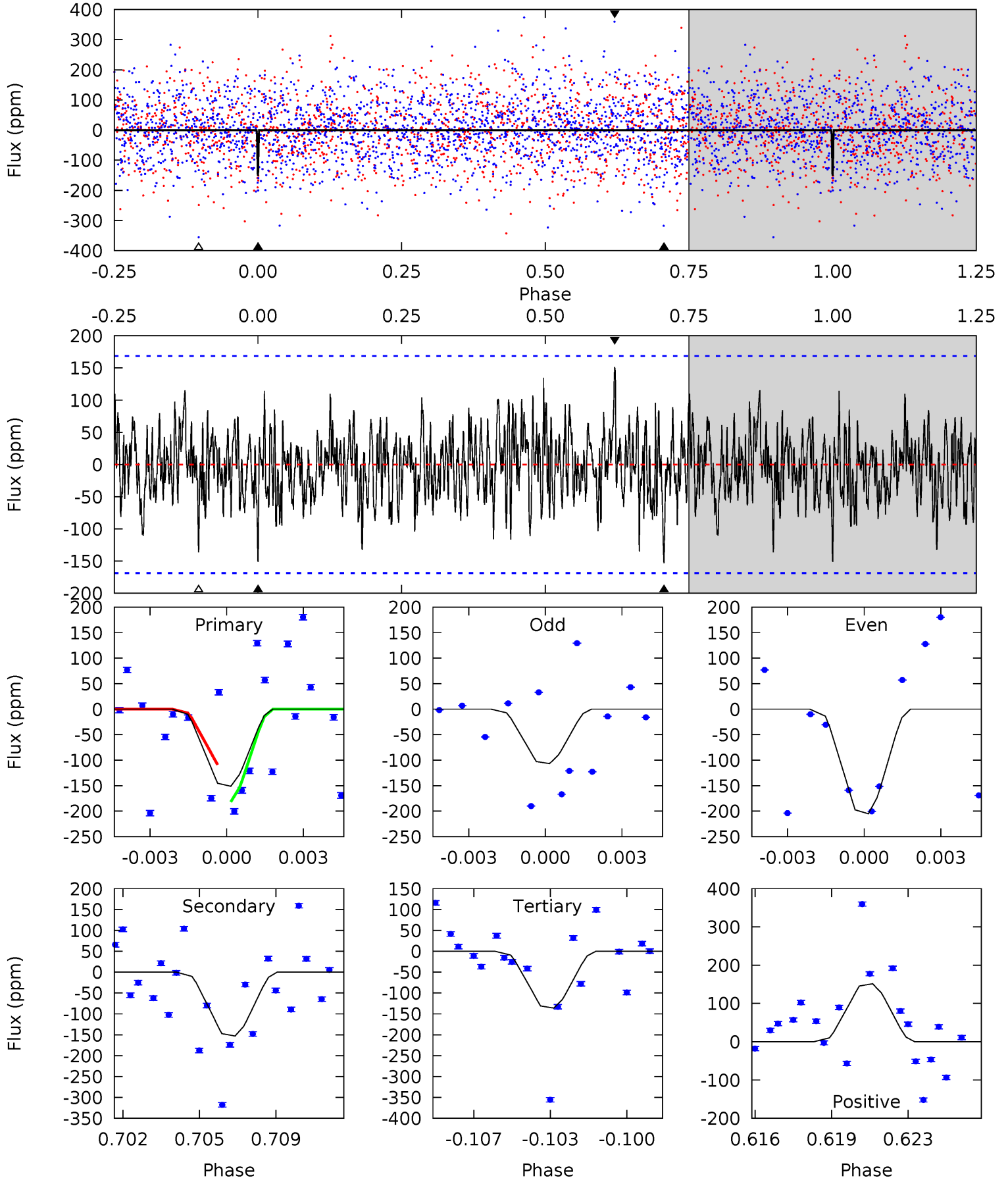


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005475668-06, P = 13.574715 Days, E = 124.900291 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.69	4.75	4.22	4.69	5.23	2.93	1.41	0.47	-0.01	0.53	0.05	1.49	0.98	0.50	1.14



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005475668

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	8211^{+226}_{-340}	$4.077^{+0.165}_{-0.150}$	$-0.180^{+0.250}_{-0.300}$	$2.013^{+0.462}_{-0.462}$	$1.763^{+0.146}_{-0.271}$	$0.304^{+0.266}_{-0.122}$
	+3%/-4%	+4%/-4%	+139%/-167%	+23%/-23%	+8%/-15%	+87%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005475668-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-153 ± 32	$3.83^{+3.06}_{-2.47}$	1952^{+128}_{-135}	6694^{+6878}_{-1717}	103^{+733}_{-73}
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 $A_{obs} \gg 1.0$

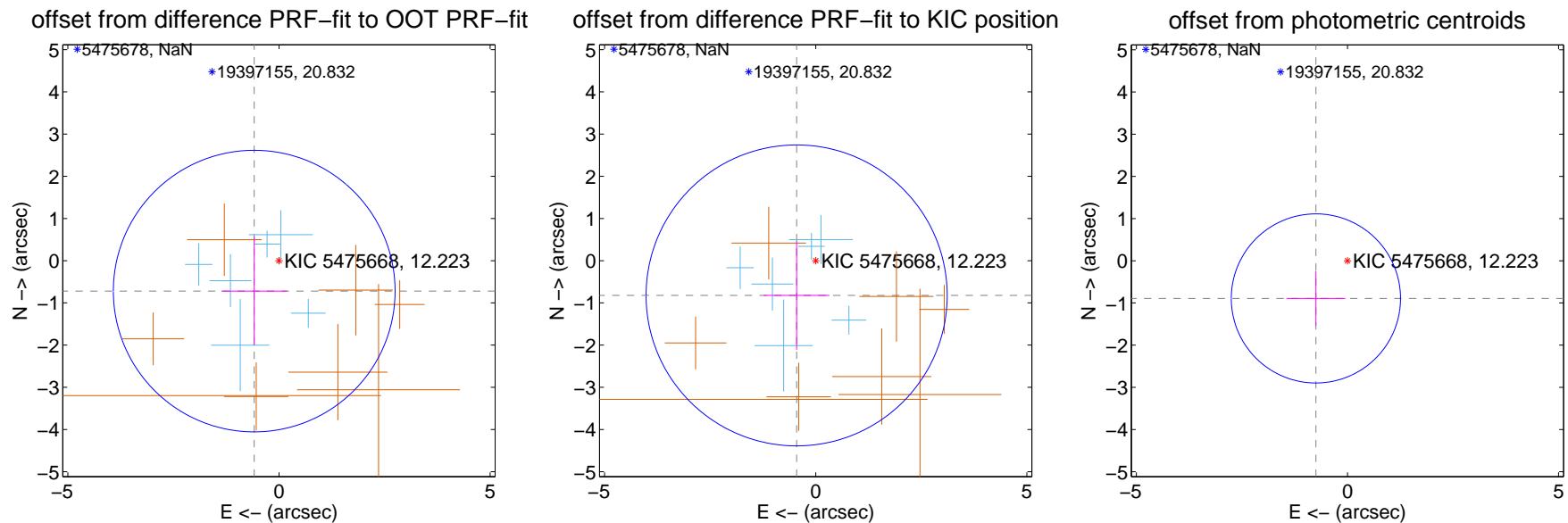
DV Centroid Data

Supplemental centroid analysis for 005475668-06. Kepler magnitude: 12.22. Transit SNR 12.31

There are 6 quarters with good PRF difference image offsets

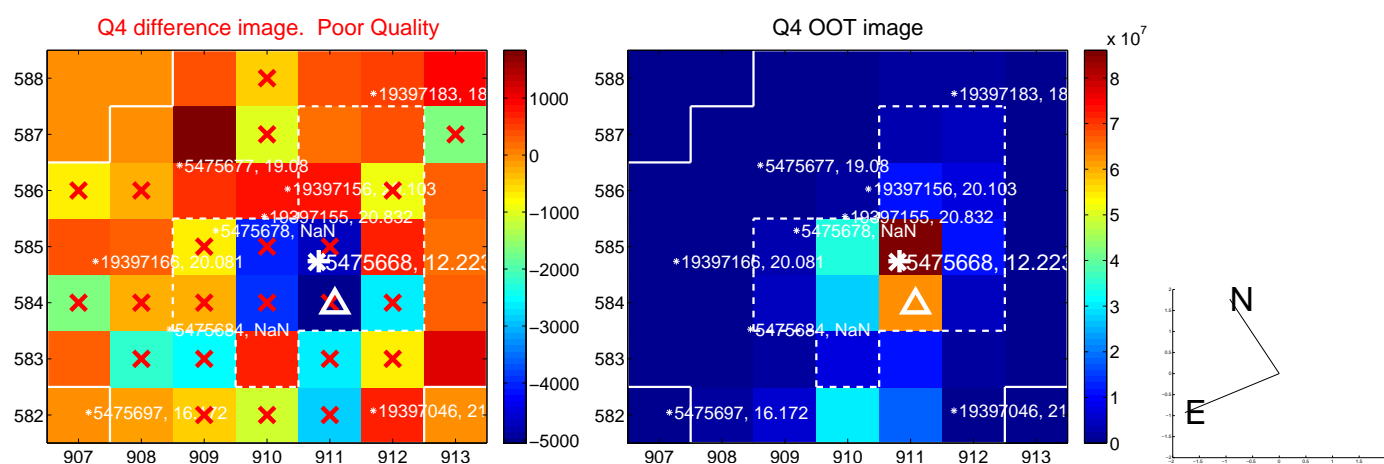
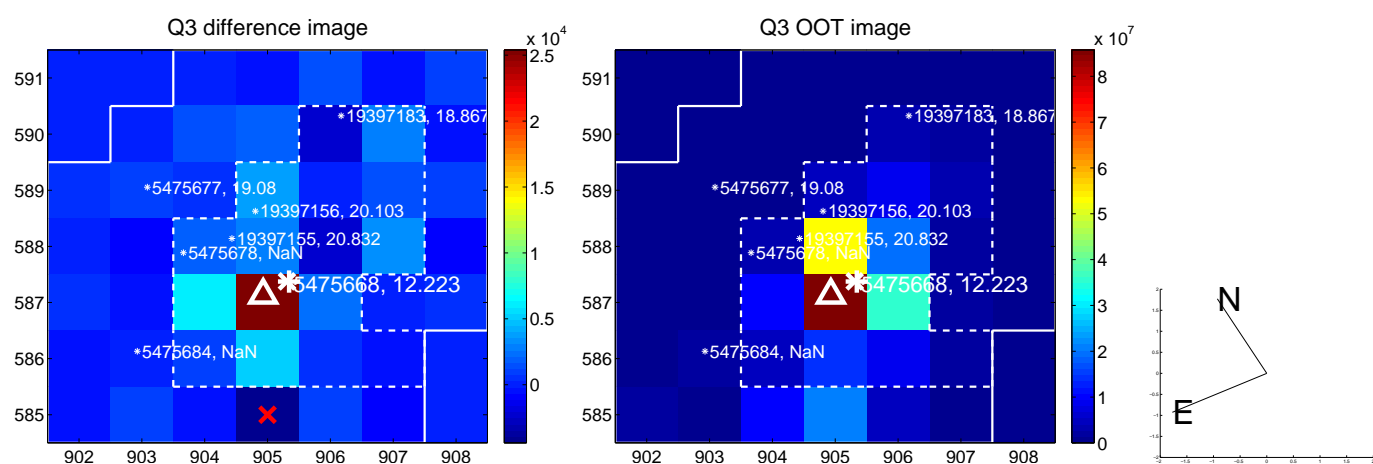
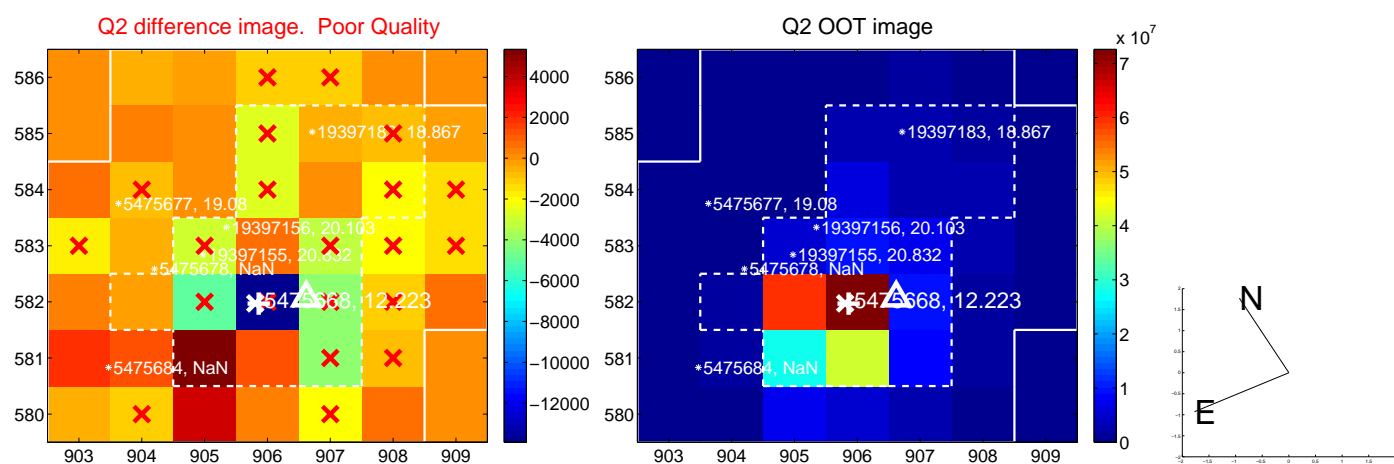
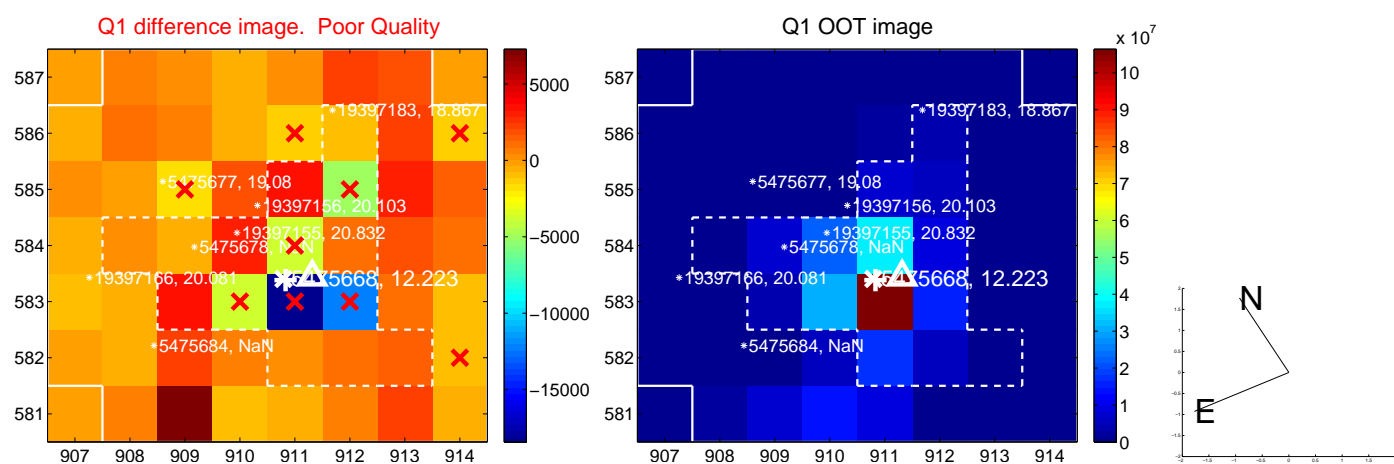
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.929 ± 1.112	0.84	0.587 ± 0.777	-0.720 ± 1.287
PRF-fit source offset from KIC position	0.939 ± 1.189	0.79	0.452 ± 0.777	-0.823 ± 1.287
photometric centroid source offset	1.16 ± 0.67	1.74	0.75 ± 0.70	-0.89 ± 0.65

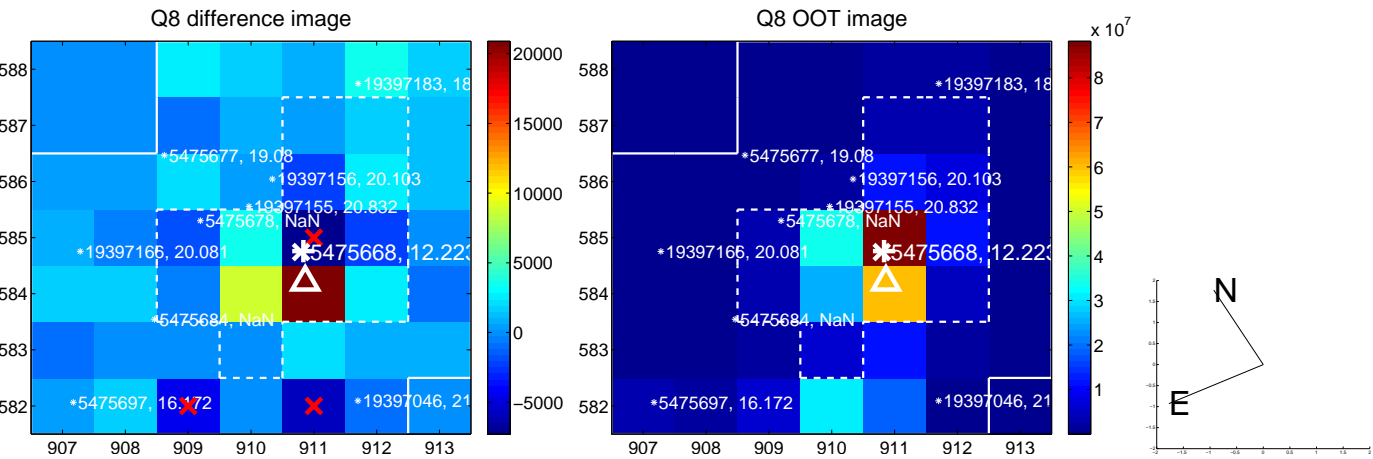
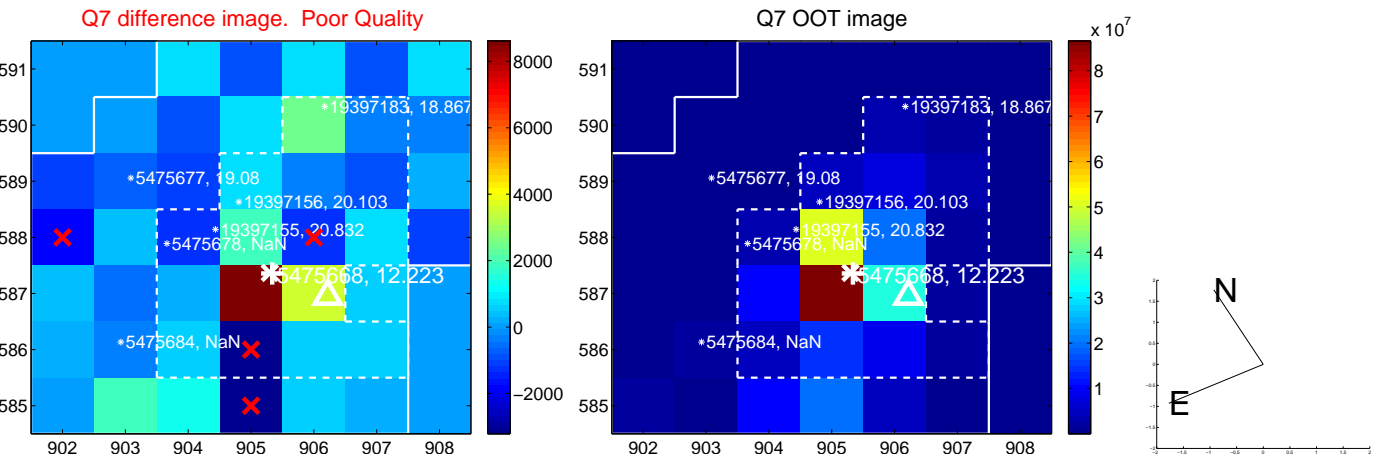
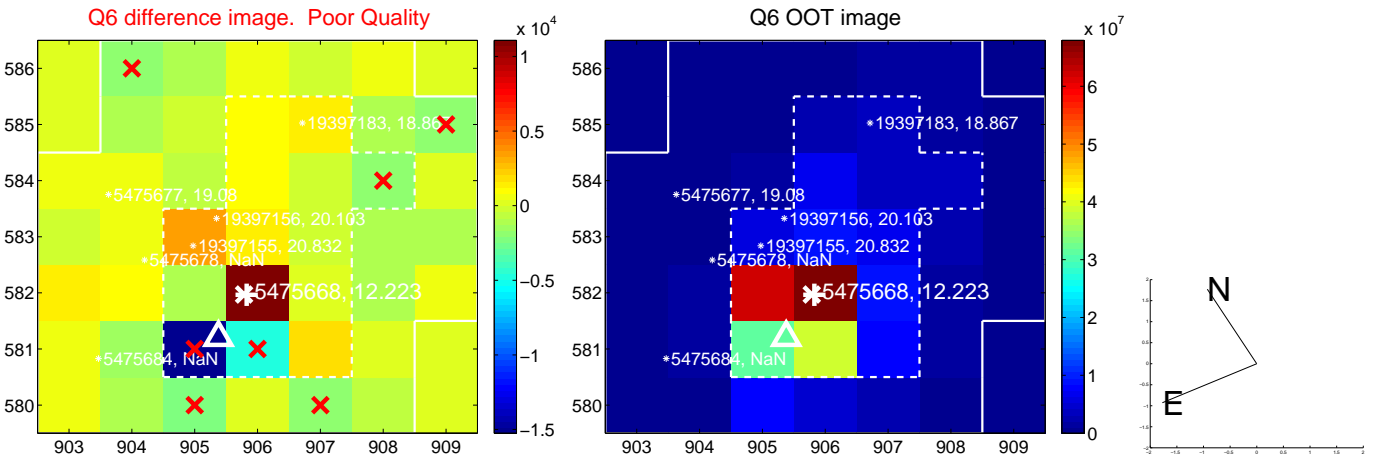
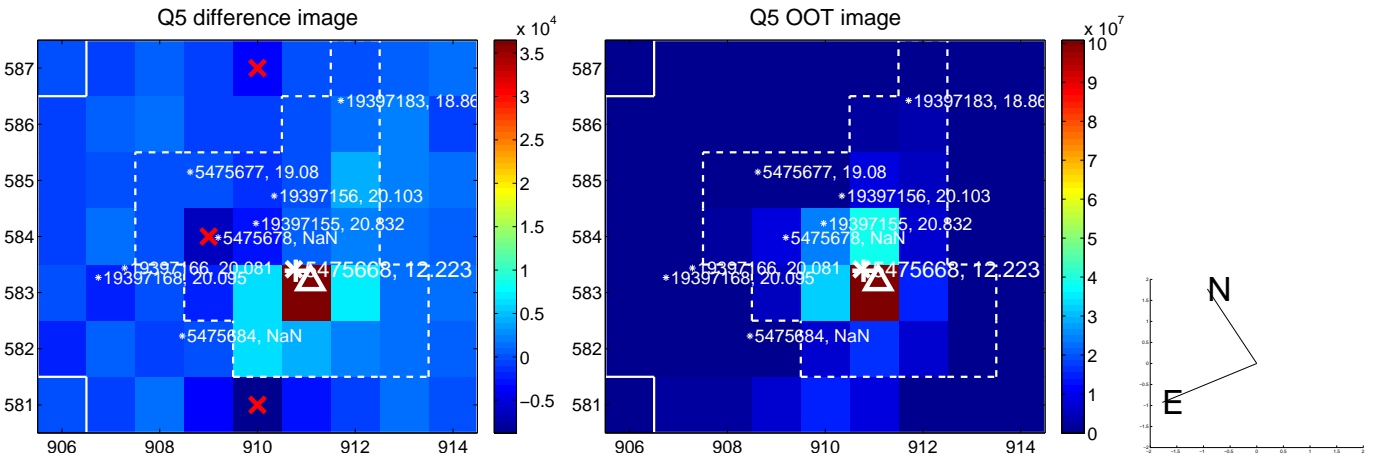


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

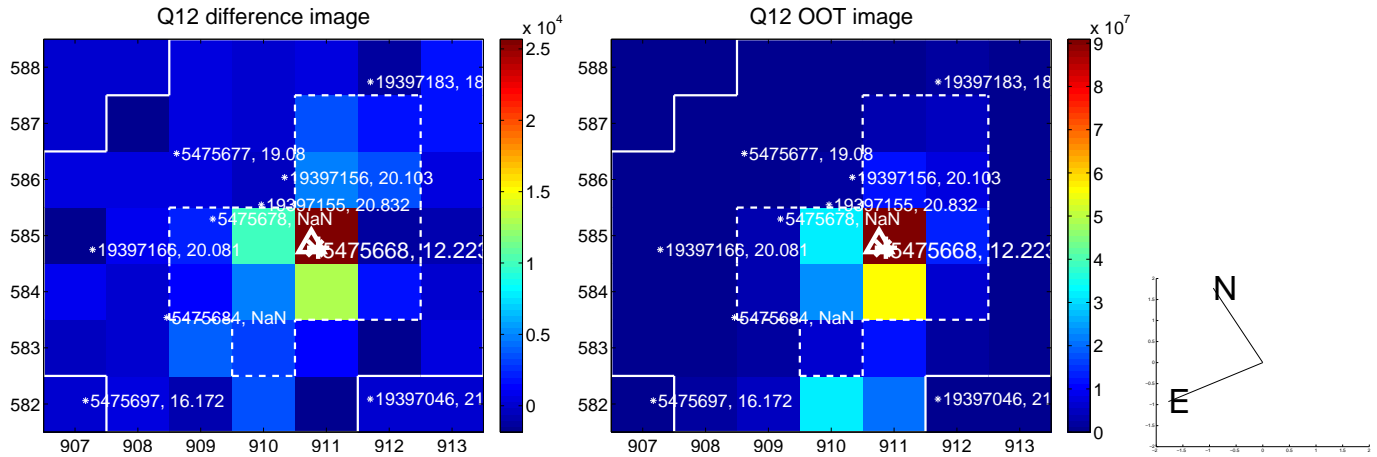
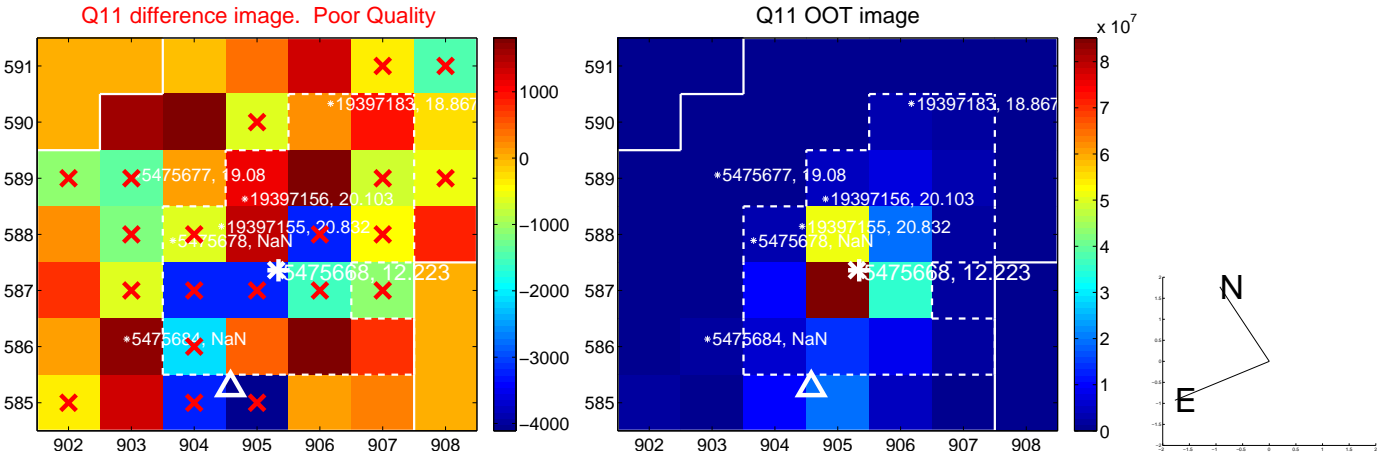
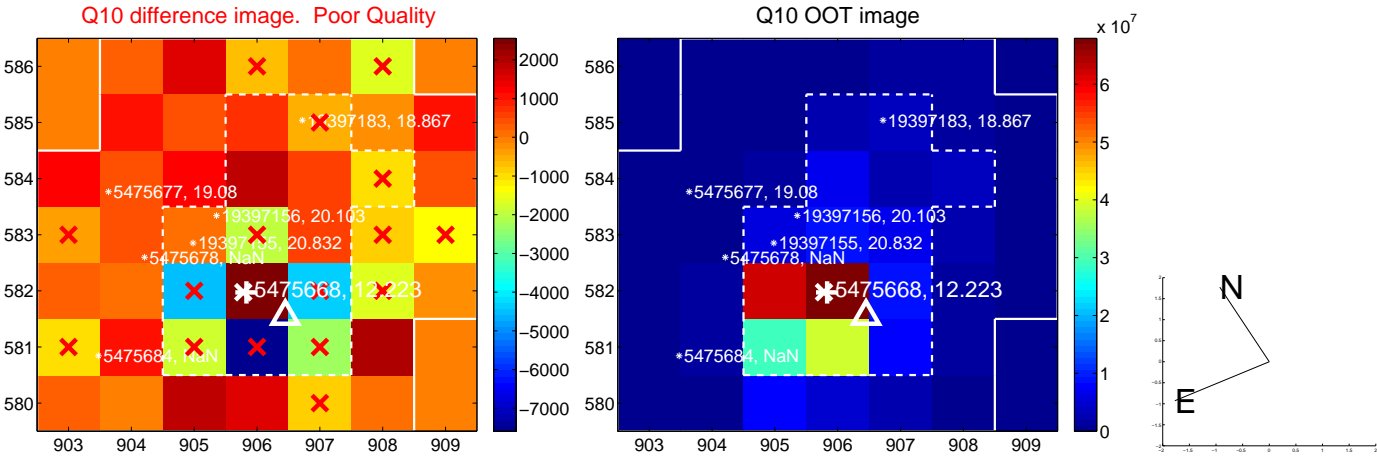
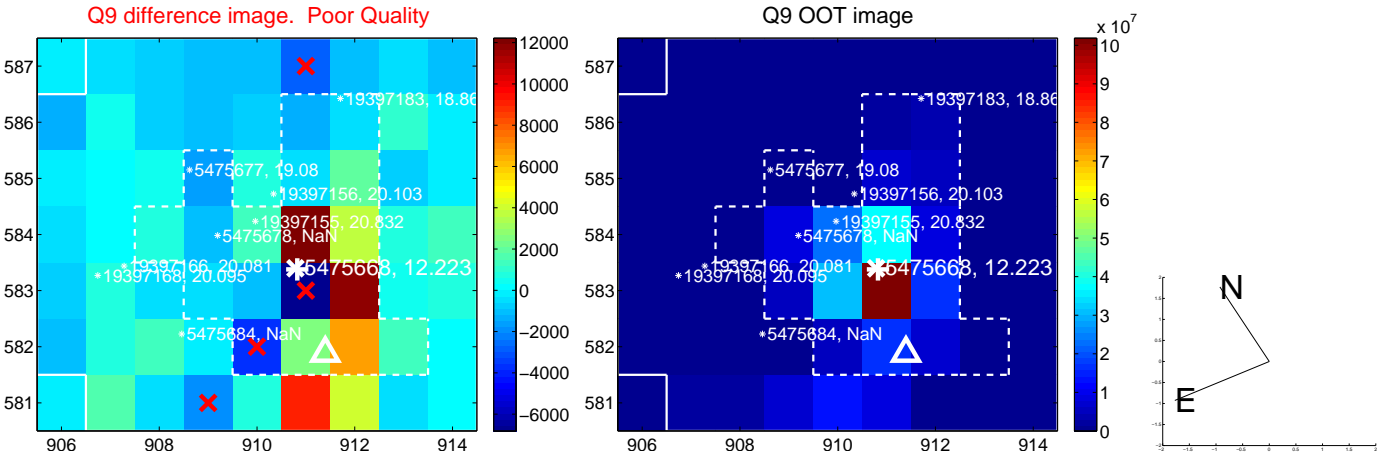
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



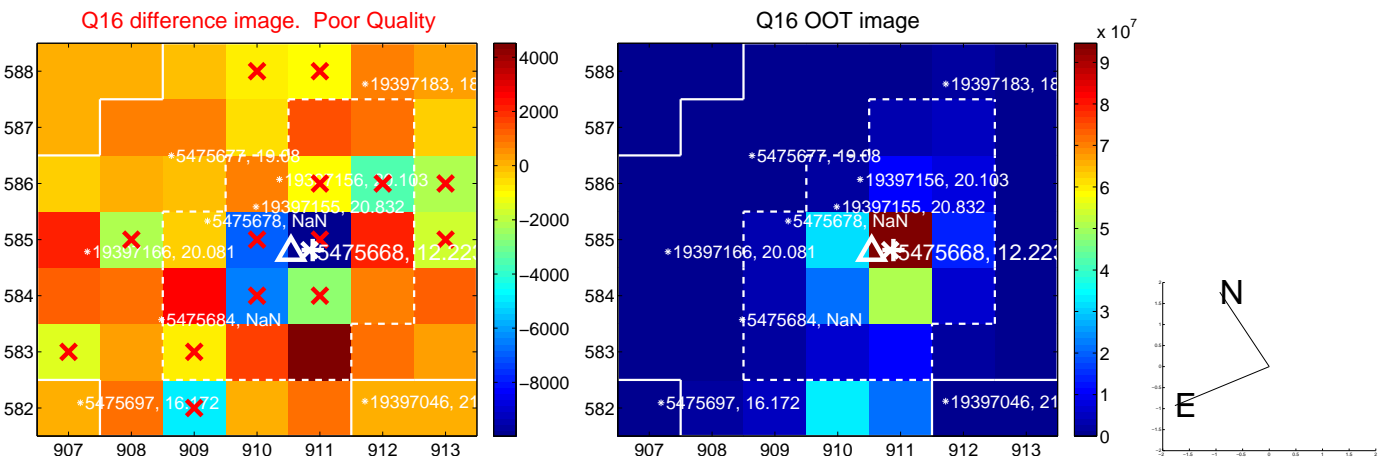
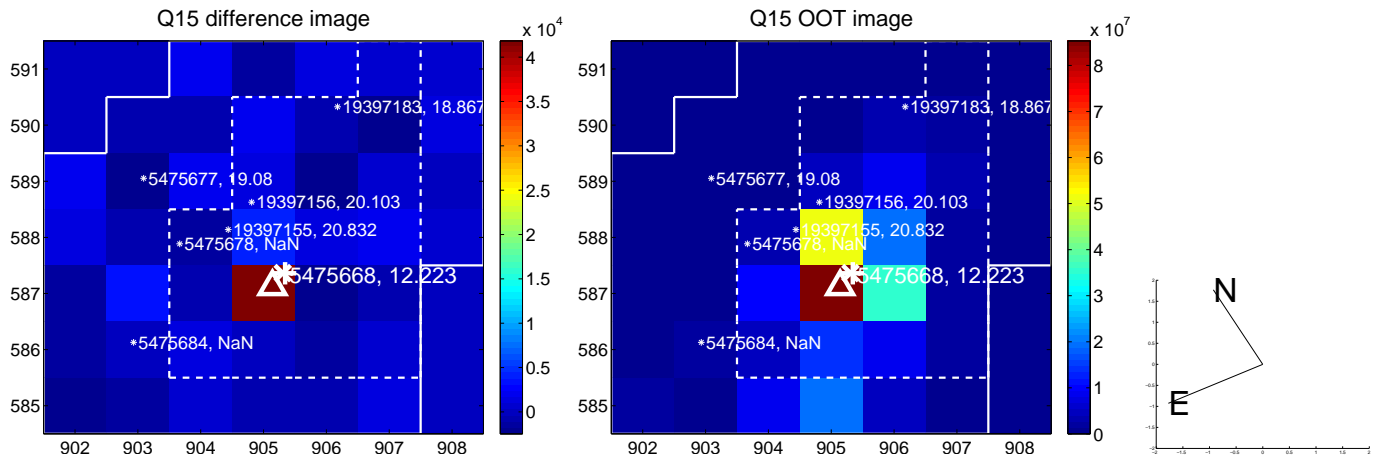
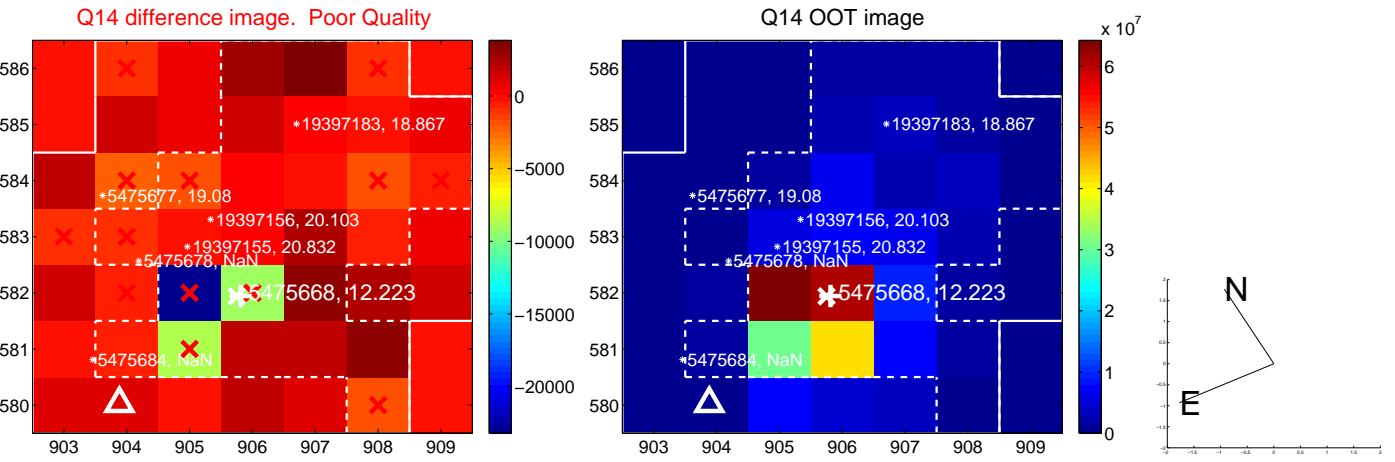
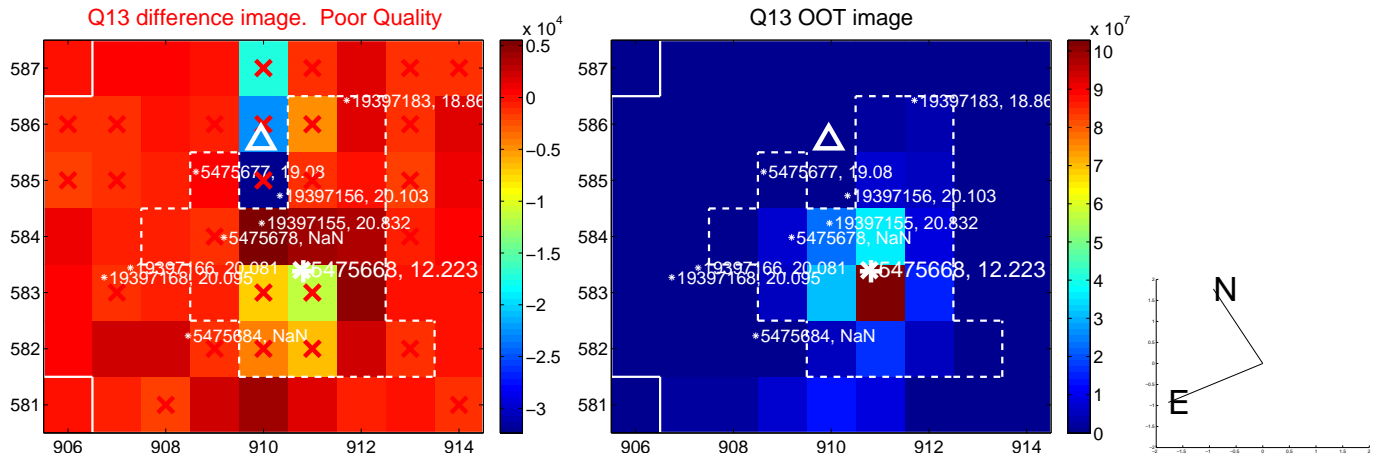
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



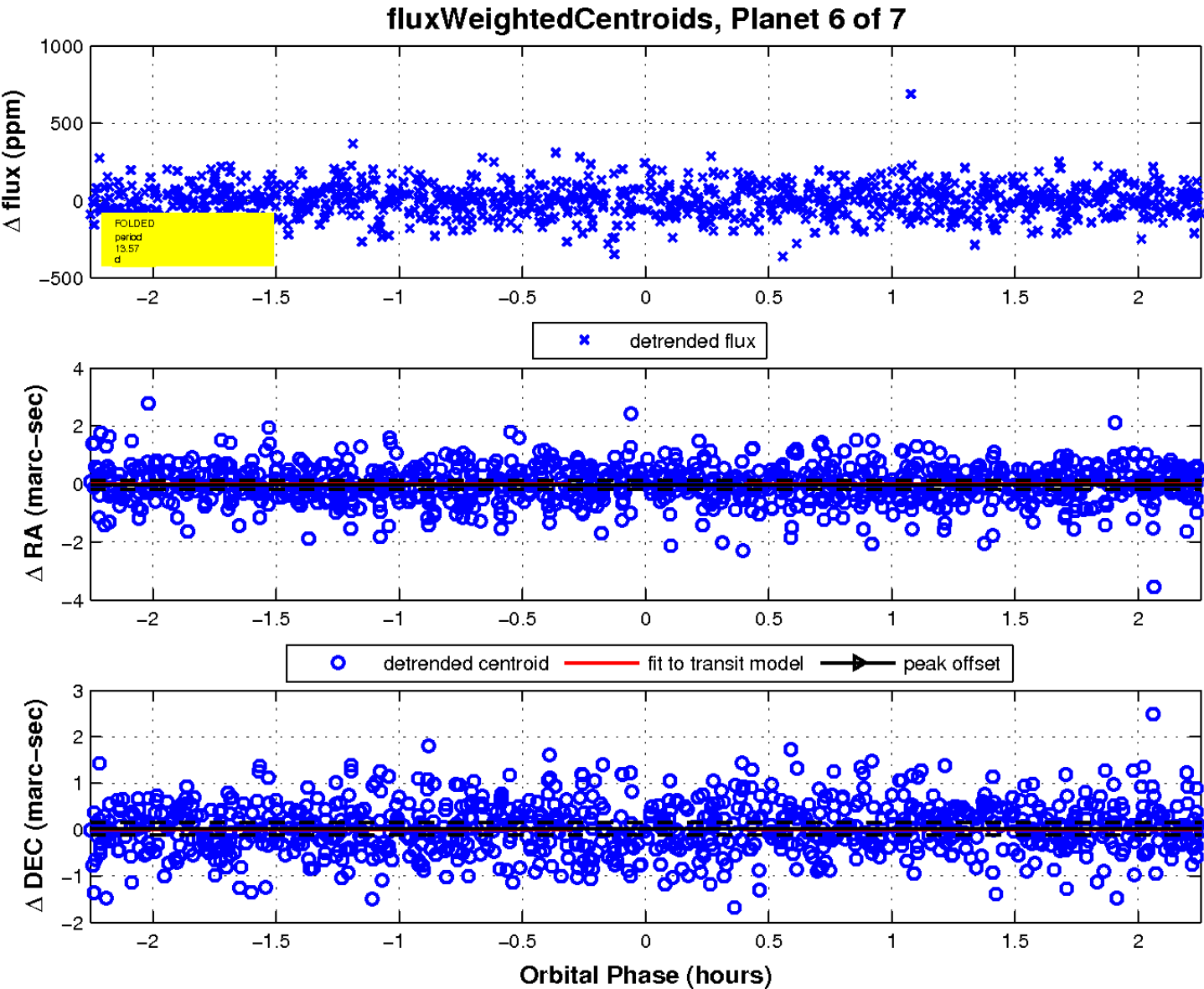
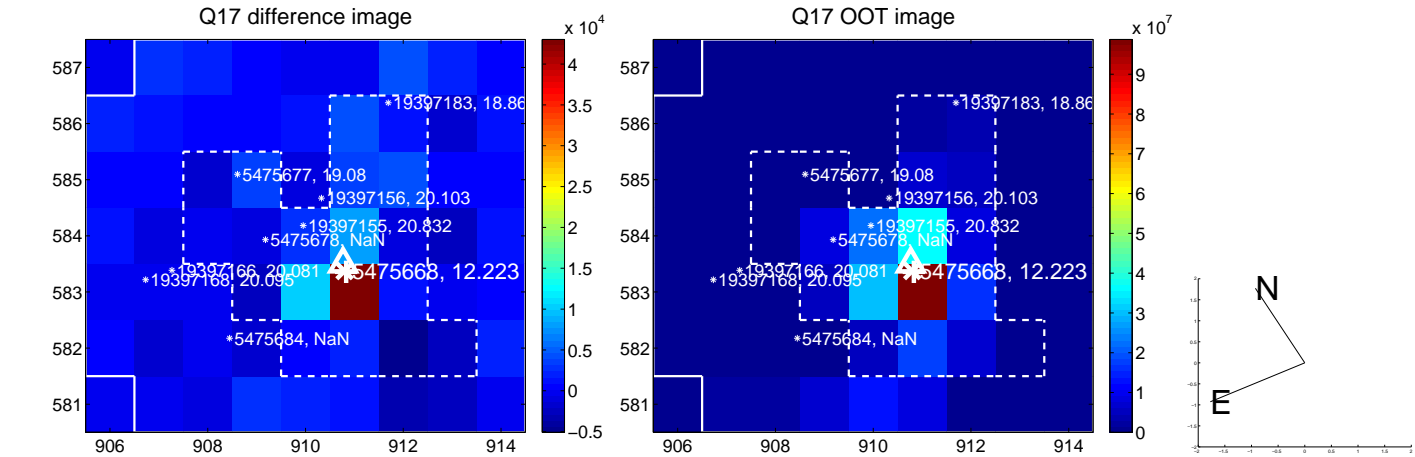
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



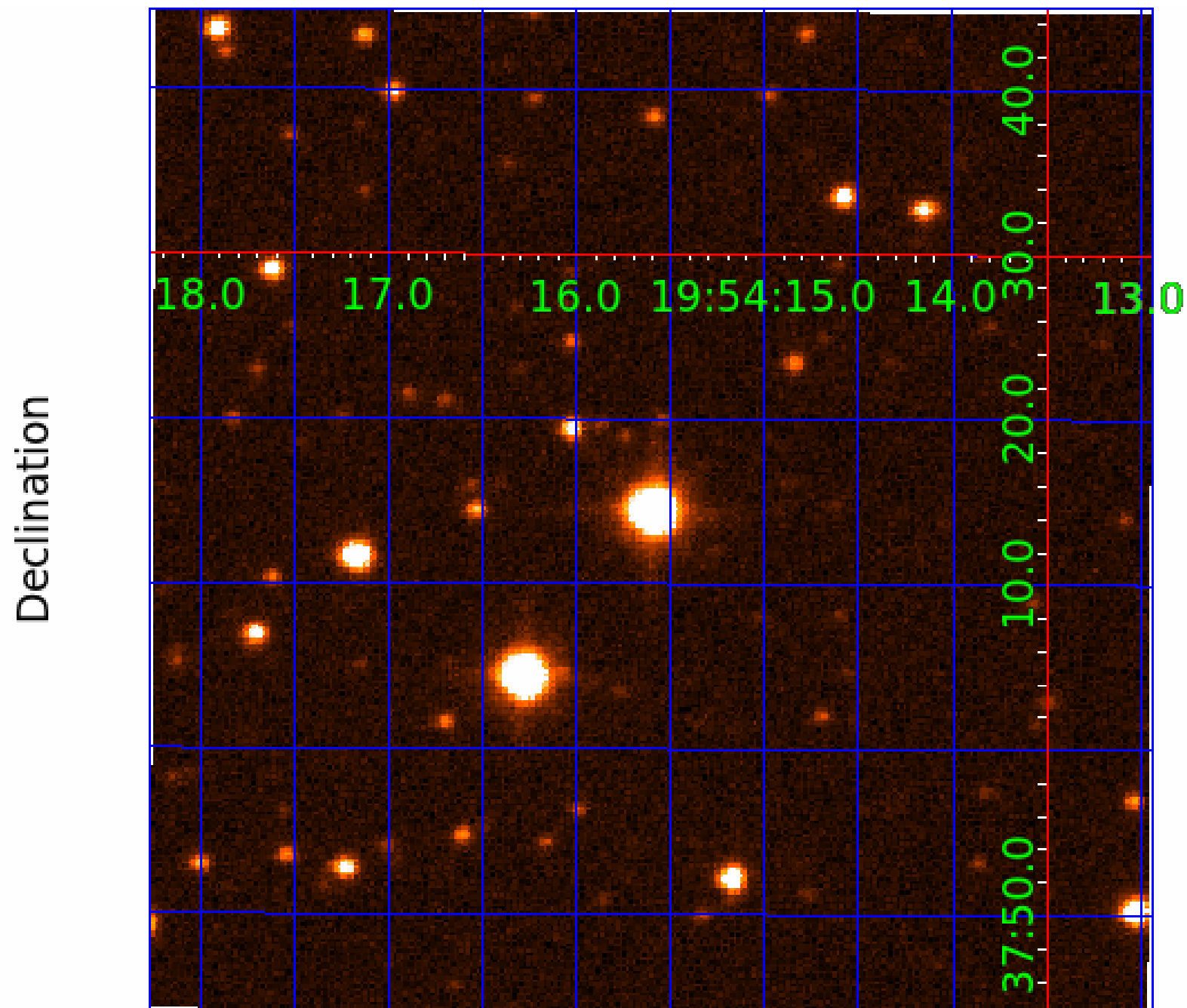
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005475668

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})
005475668-01	OBS	No	0.628755	132.180580	4.4	4.649	9.4	4.4	2.01	8211	0.43	54751.94
005475668-02	OBS	No	23.046835	153.053781	182.2	1.423	13.8	14.1	2.01	8211	2.85	449.67
005475668-03	OBS	No	17.179508	134.861136	202.2	0.982	12.6	14.4	2.01	8211	3.10	665.31
005475668-04	OBS	No	16.794083	134.128818	131.7	1.375	12.3	9.3	2.01	8211	2.60	685.75
005475668-06	OBS	No	13.574715	138.475006	195.5	0.752	12.1	12.3	2.01	8211	2.97	910.75
005475668-07	OBS	No	6.968977	137.476932	180.3	0.705	8.1	13.1	2.01	8211	2.85	2215.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475668-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005475668-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
005475668-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
005475668-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

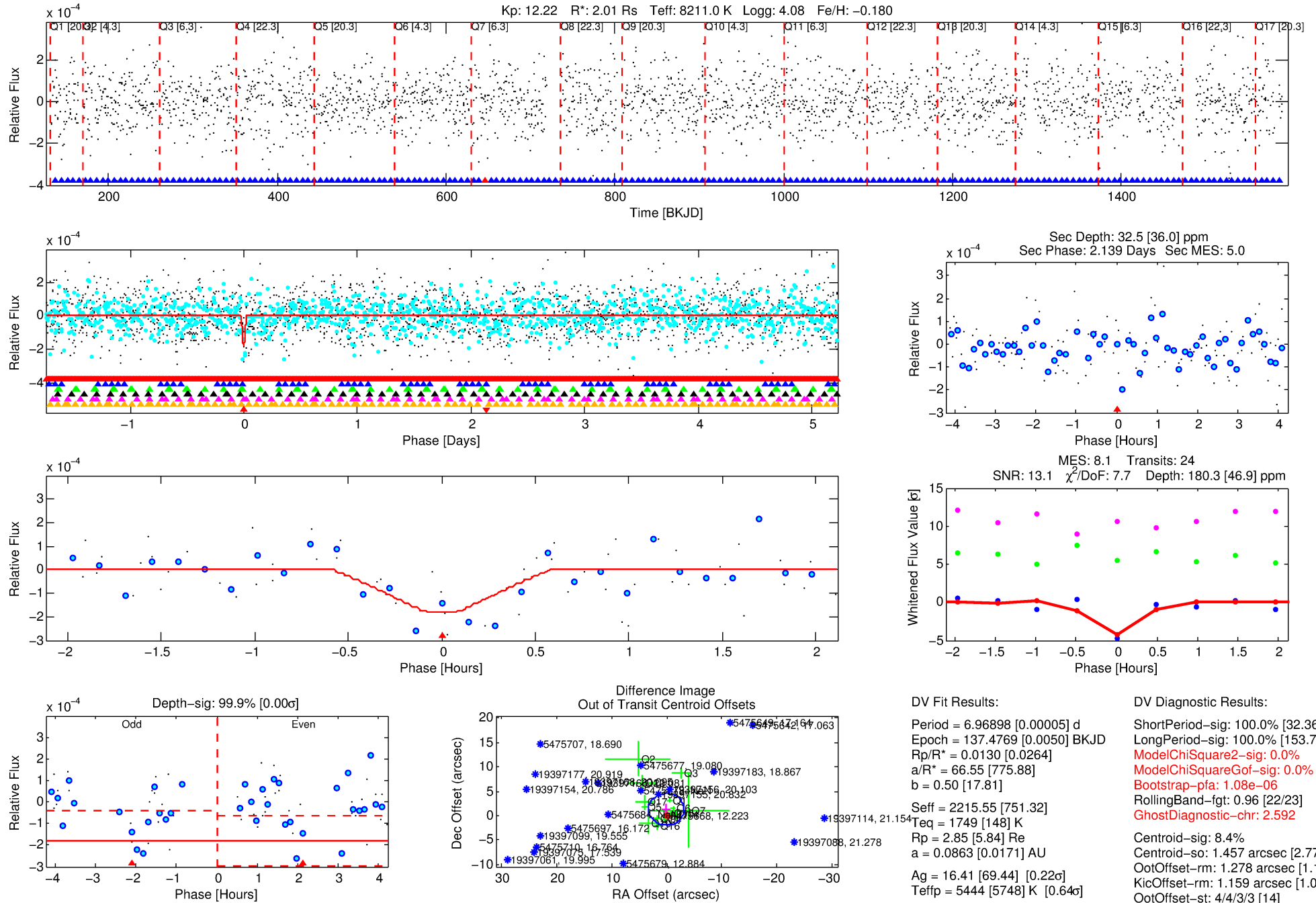
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475668-07

No Significant Match Found

DV One-Page Summary

KIC: 5475668 Candidate: 7 of 7 Period: 6.969 d



DV Fit Results:

Period = 6.96898 [0.00005] d
Epoch = 137.4769 [0.0050] BKJD
Rp/R* = 0.0130 [0.0264]
a/R* = 66.55 [775.88]
b = 0.50 [17.81]
Seff = 2215.55 [751.32]
Teq = 1749 [148] K
Rp = 2.85 [5.84] Re
a = 0.0863 [0.0171] AU
Ag = 16.41 [69.44] [0.22σ]
Teffp = 5444 [5748] K [0.64σ]

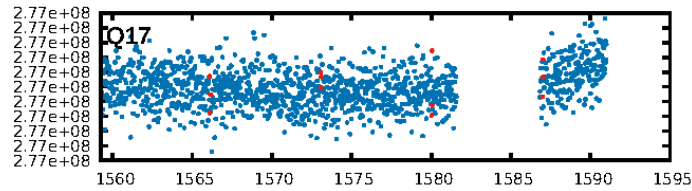
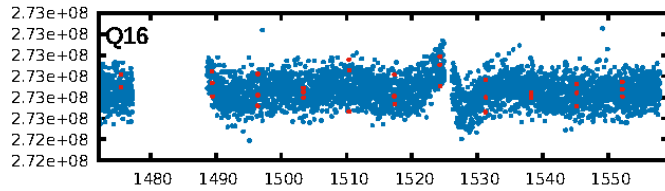
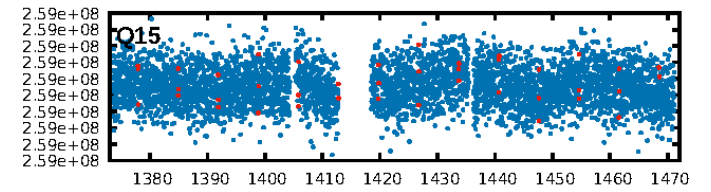
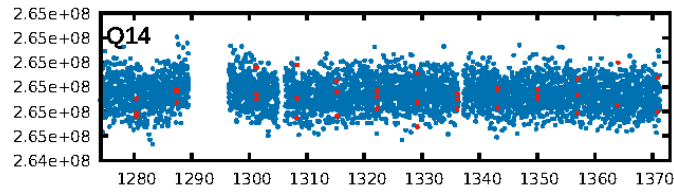
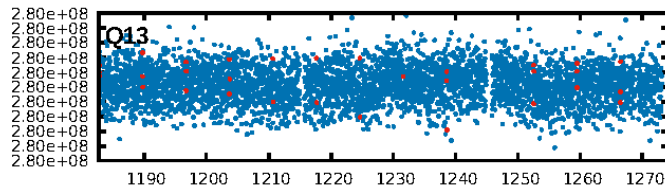
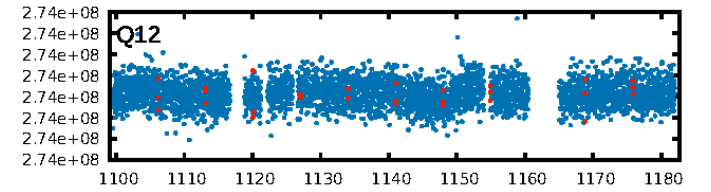
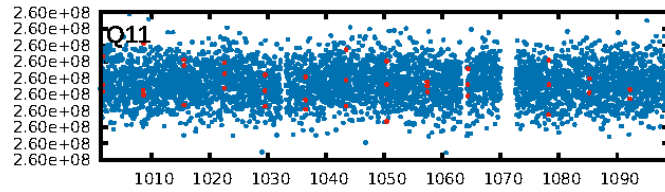
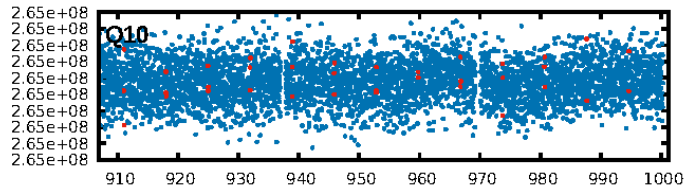
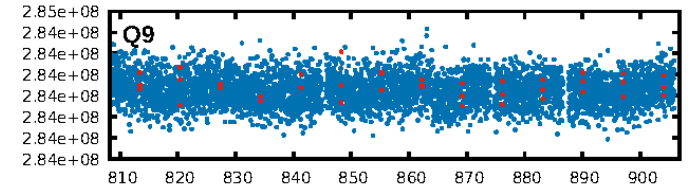
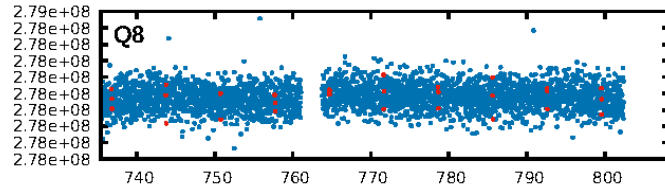
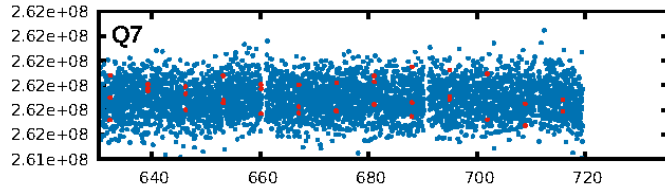
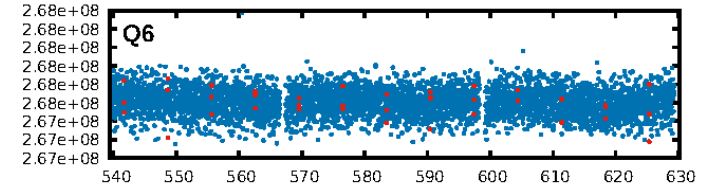
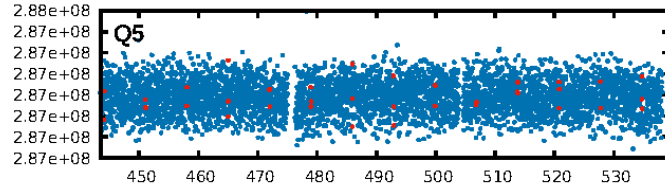
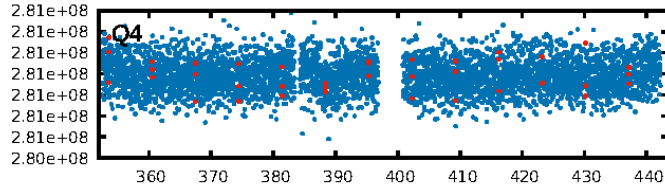
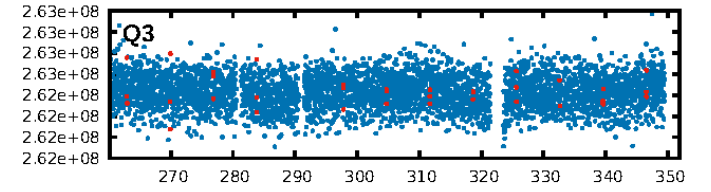
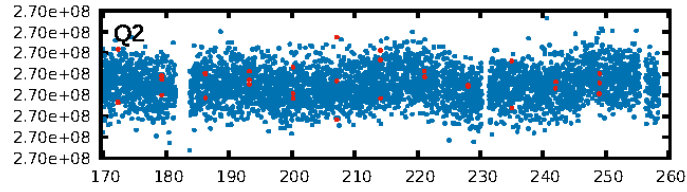
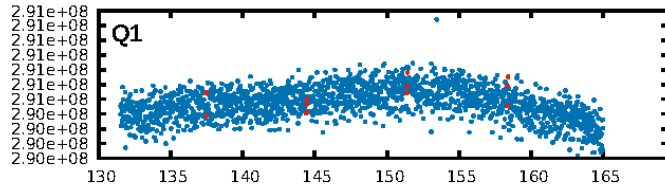
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [32.36σ]
LongPeriod-sig: 100.0% [153.79σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 1.08e-06
RollingBand-fgt: 0.96 [22/23]
GhostDiagnostic-chr: 2.592
Centroid-sig: 8.4%
Centroid-so: 1.457 arcsec [2.77σ]
OotOffset-rm: 1.278 arcsec [1.18σ]
OotOffset-st: 4/4/3/3 [14]
KicOffset-rm: 1.159 arcsec [1.09σ]
KicOffset-st: 4/4/3/3 [14]
DiffImageQuality-fgm: 0.14 [2/14]
DiffImageOverlap-fno: 0.00 [0/17]

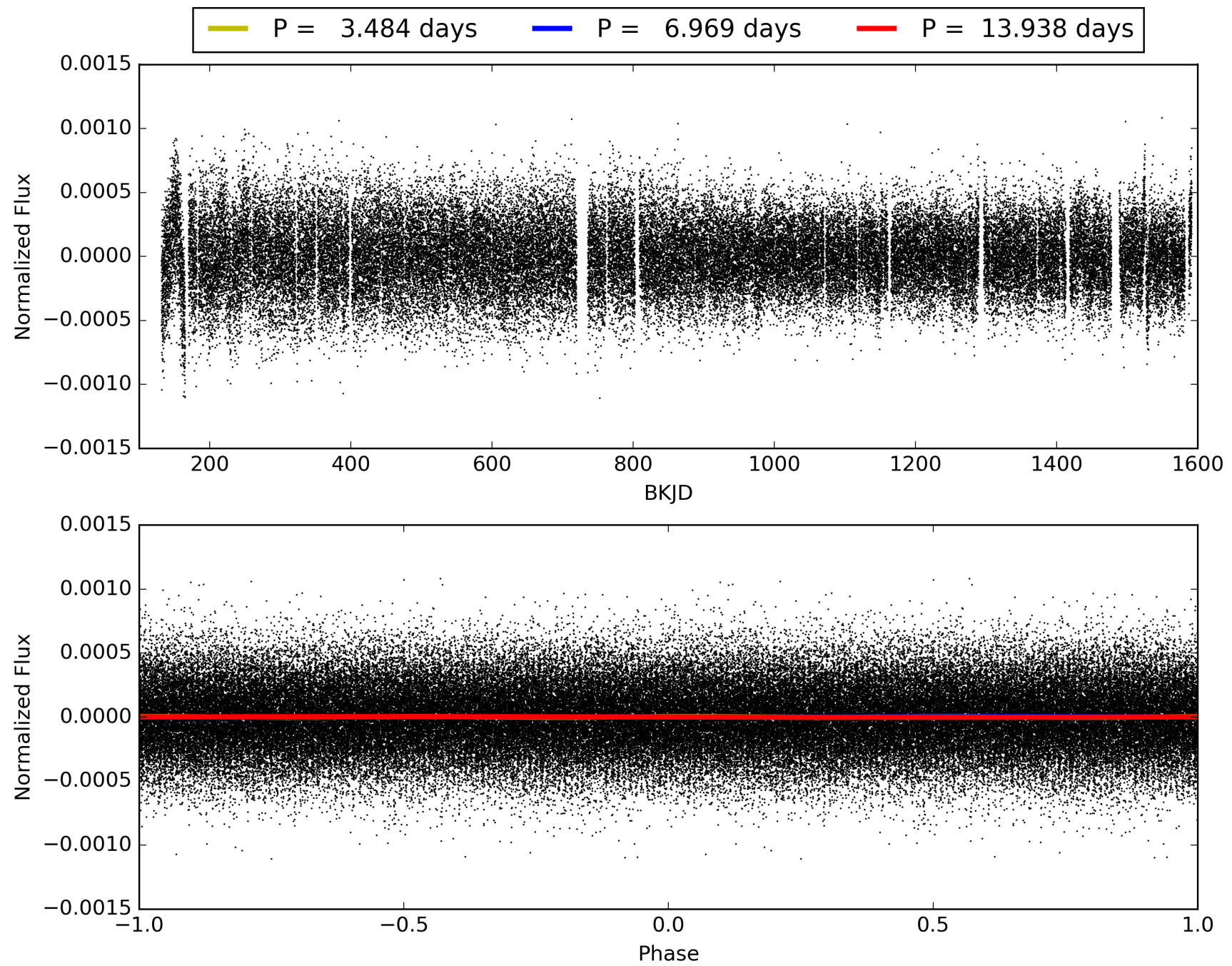
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:28:33 Z

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

TCE 005475668-07, PDC Light Curves

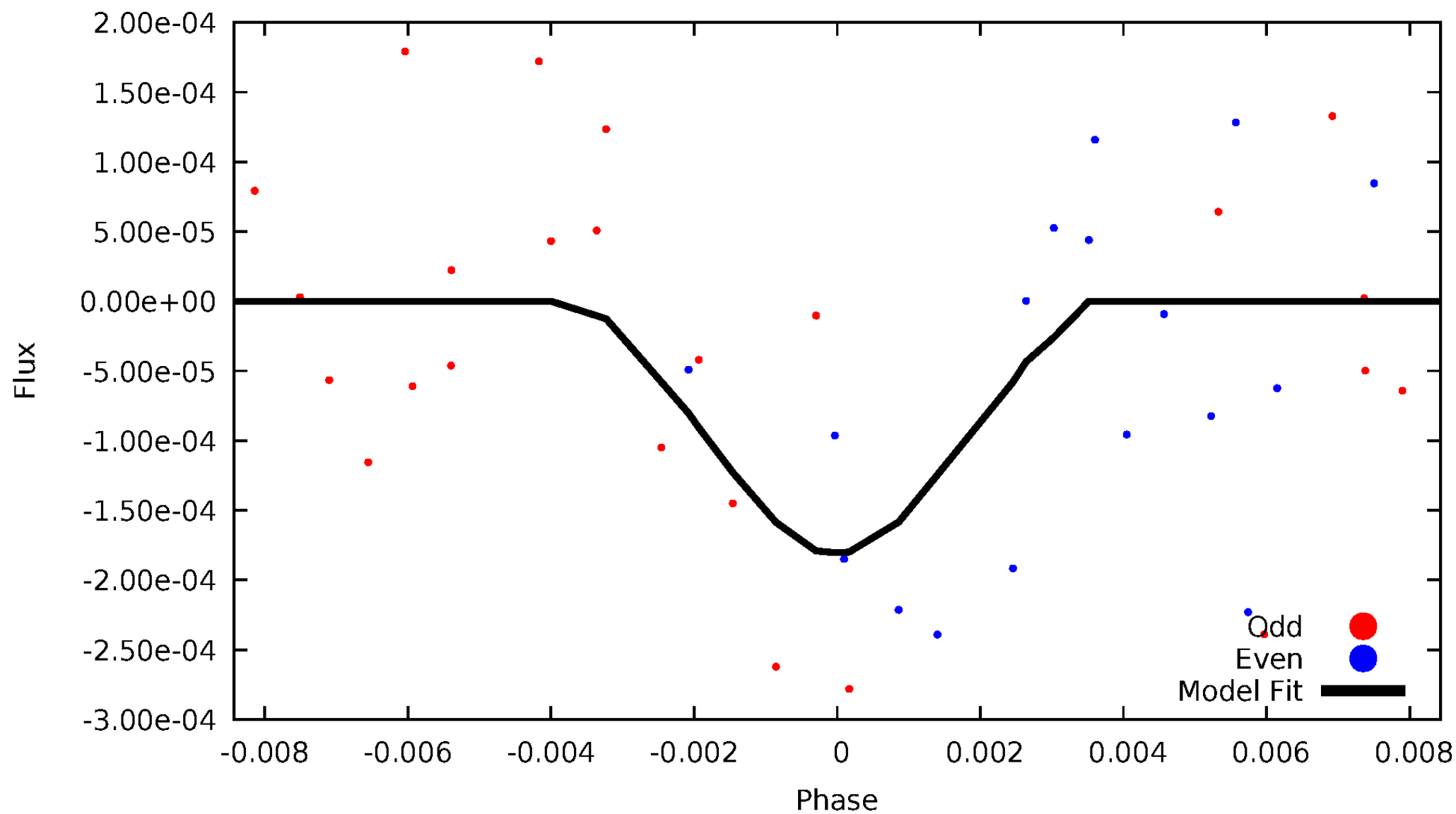


TCE 005475668-07



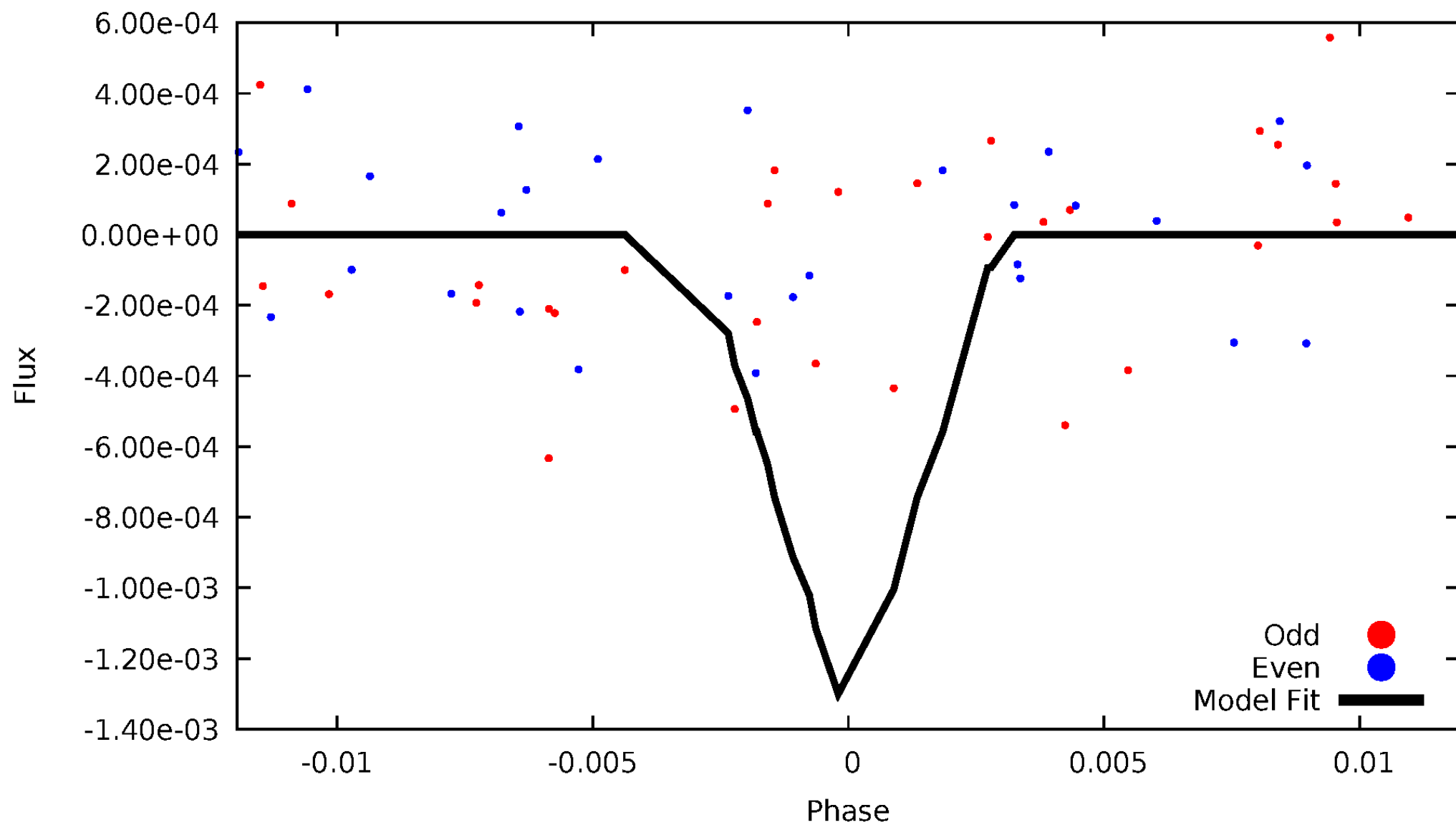
DV Odd/Even

TCE 005475668-07



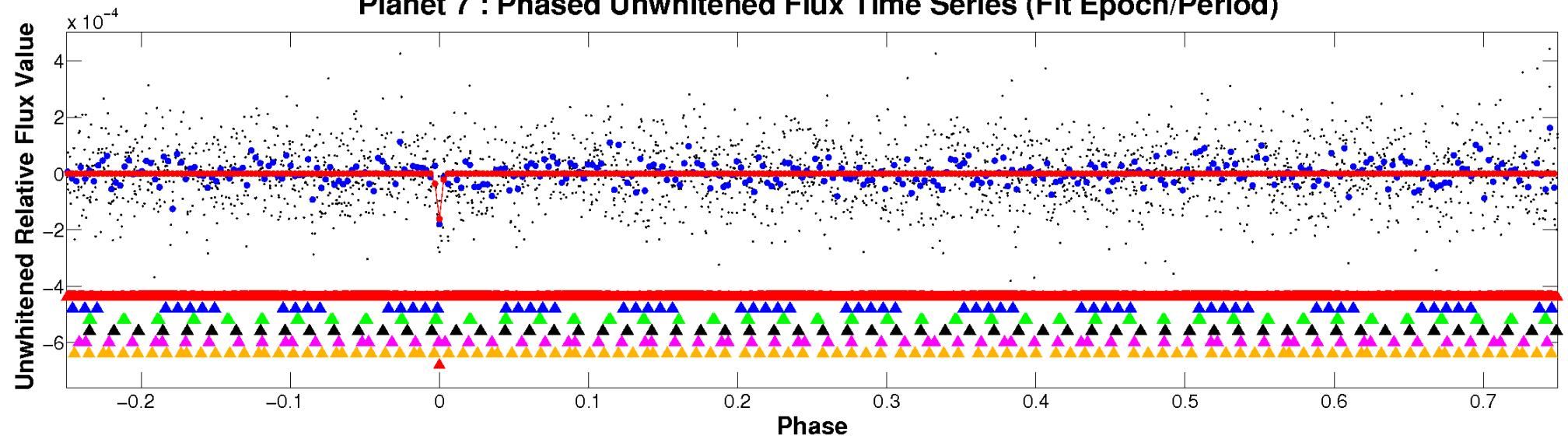
ALT Odd/Even

TCE 005475668-07

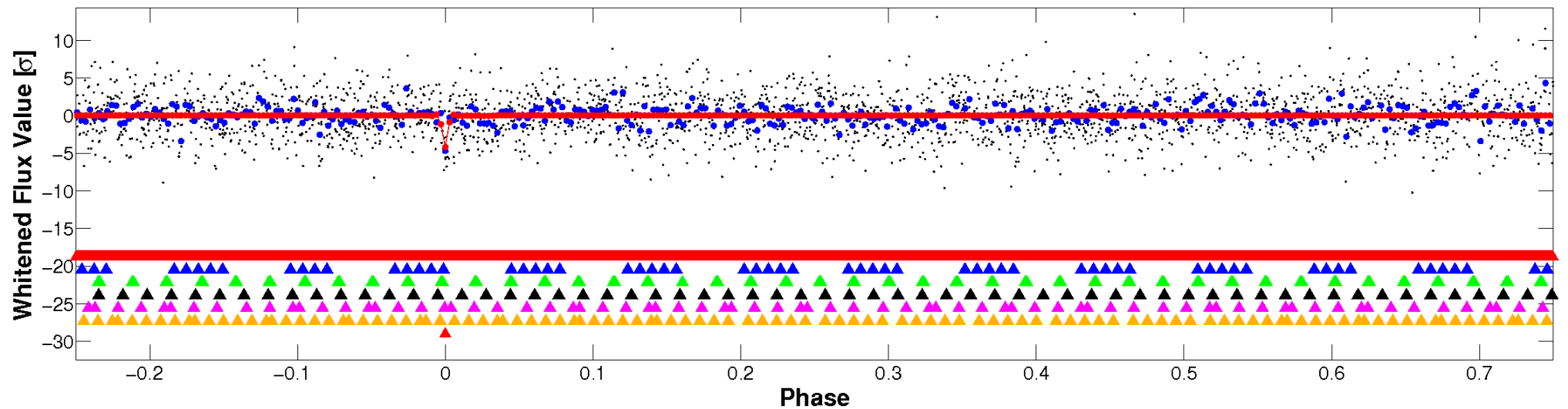


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

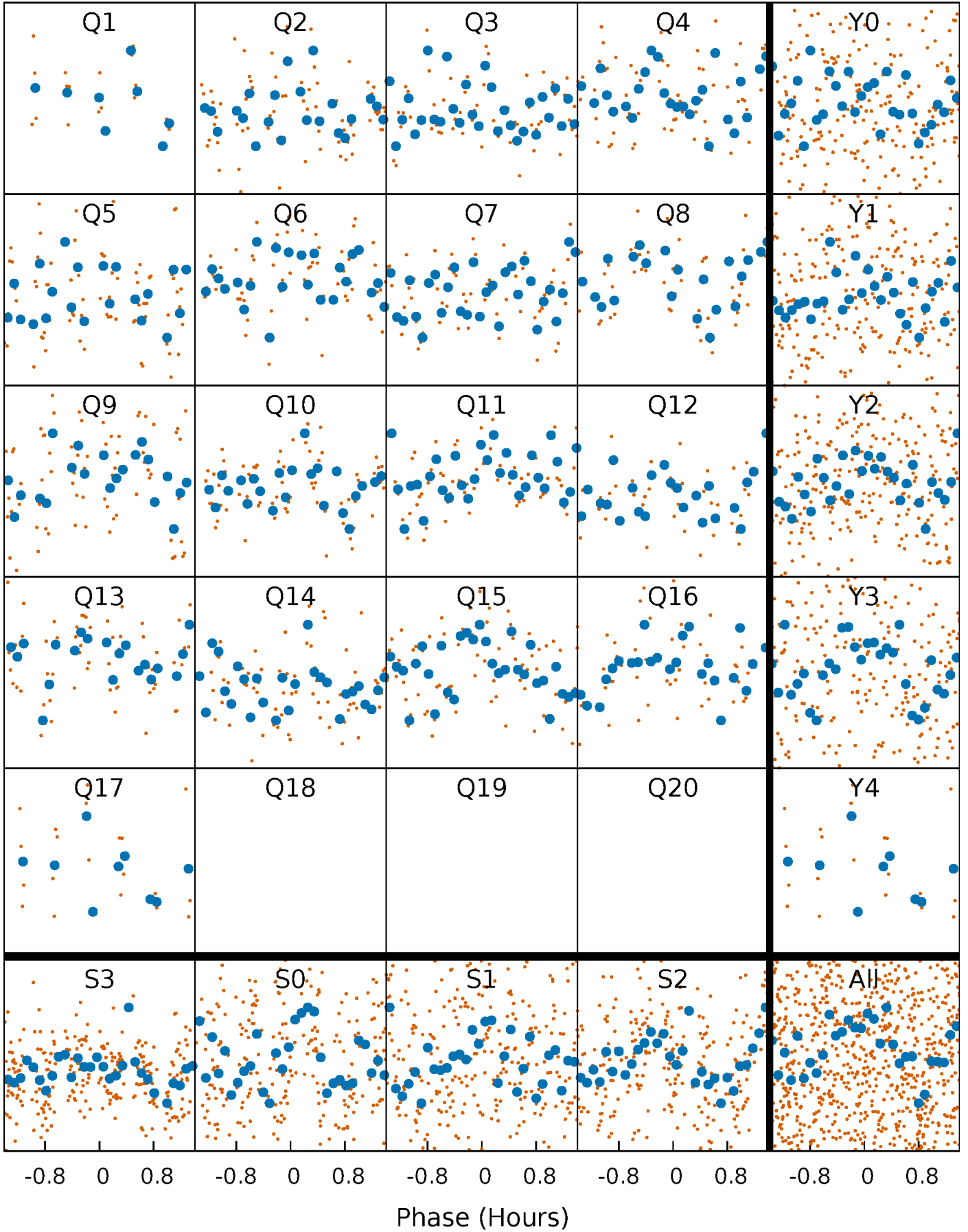


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



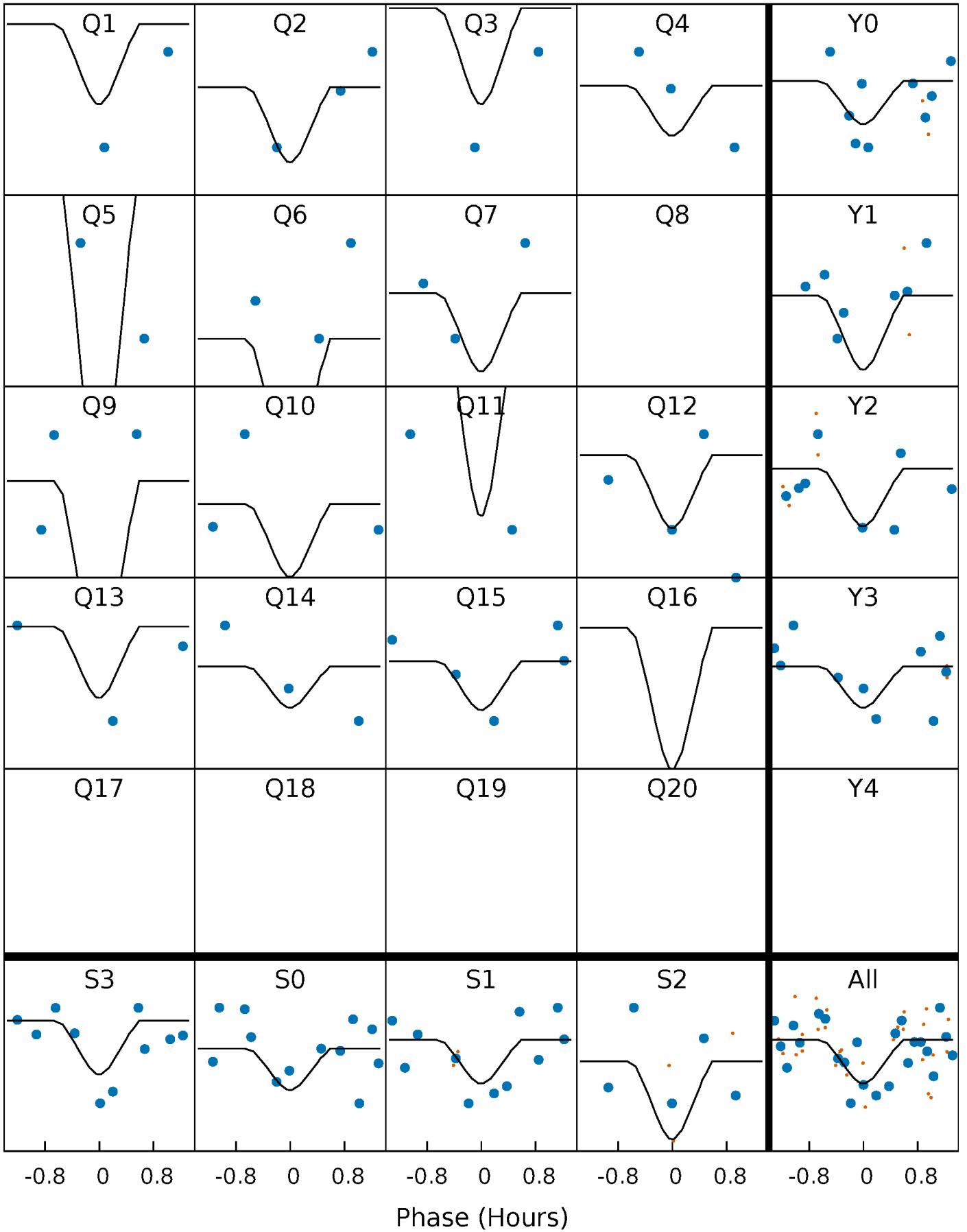
PDC Quarter-Phased Transit Curves

TCE 005475668-07 $P = 6.968977$ Days $T_0 = 137.476932$ (BKJD)



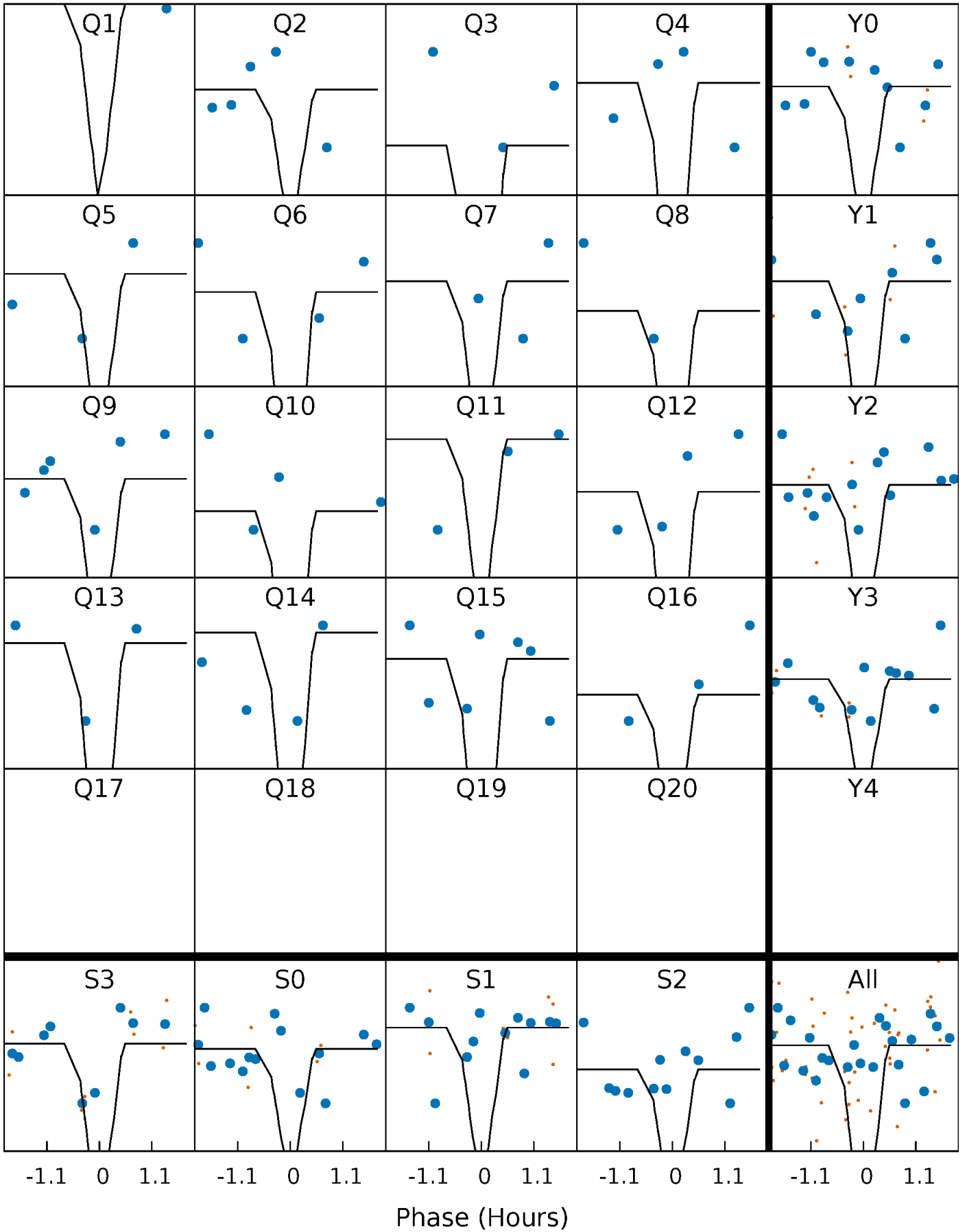
DV Quarter-Phased Transit Curves

TCE 005475668-07 P= 6.968977 Days $T_0=137.476932$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

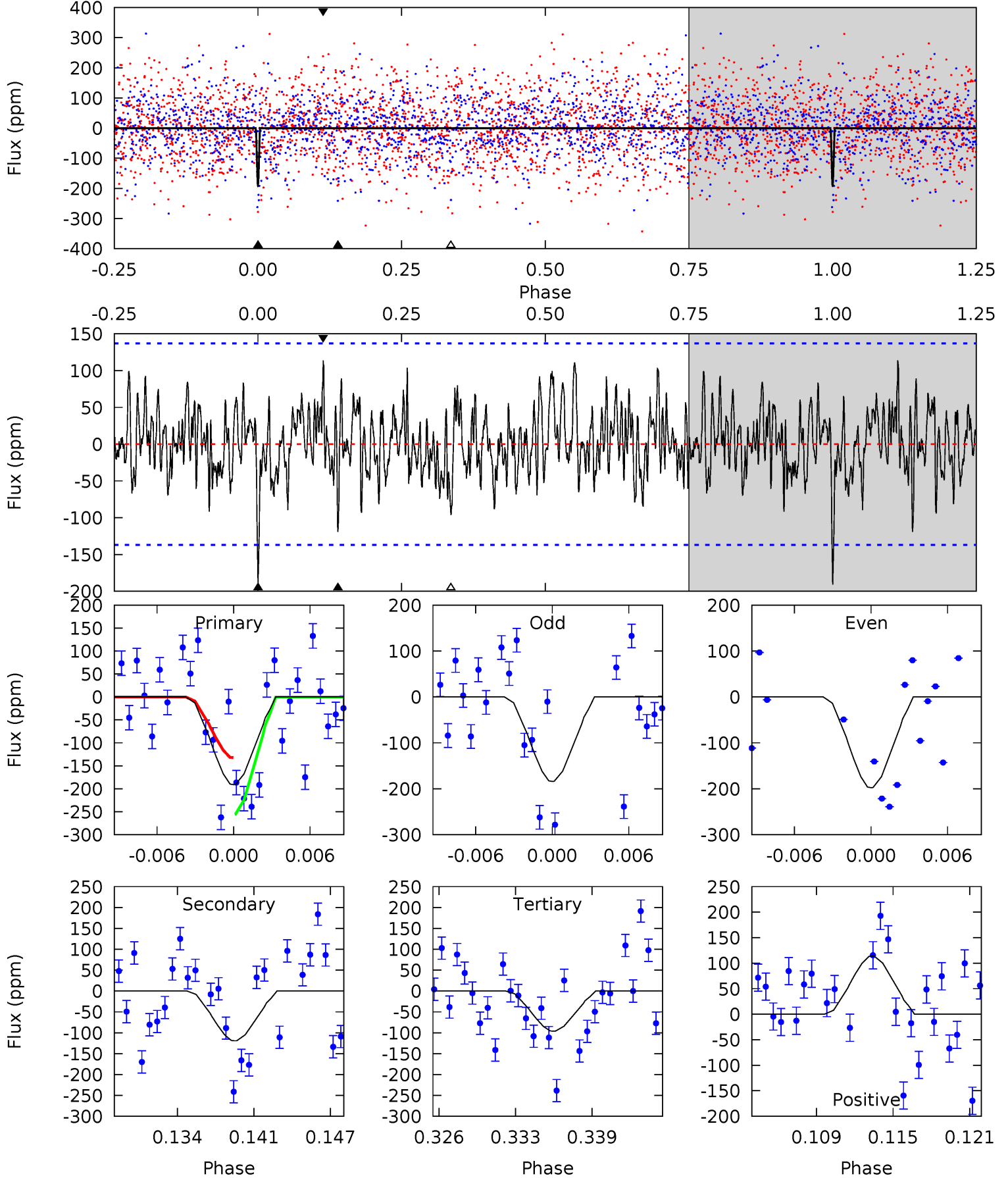
TCE 005475668-07 P= 6.970160 Days $T_0=137.314918$ (BKJD)



DV Model-Shift Uniqueness Test

005475668-07, P = 6.968977 Days, E = 130.507955 Days

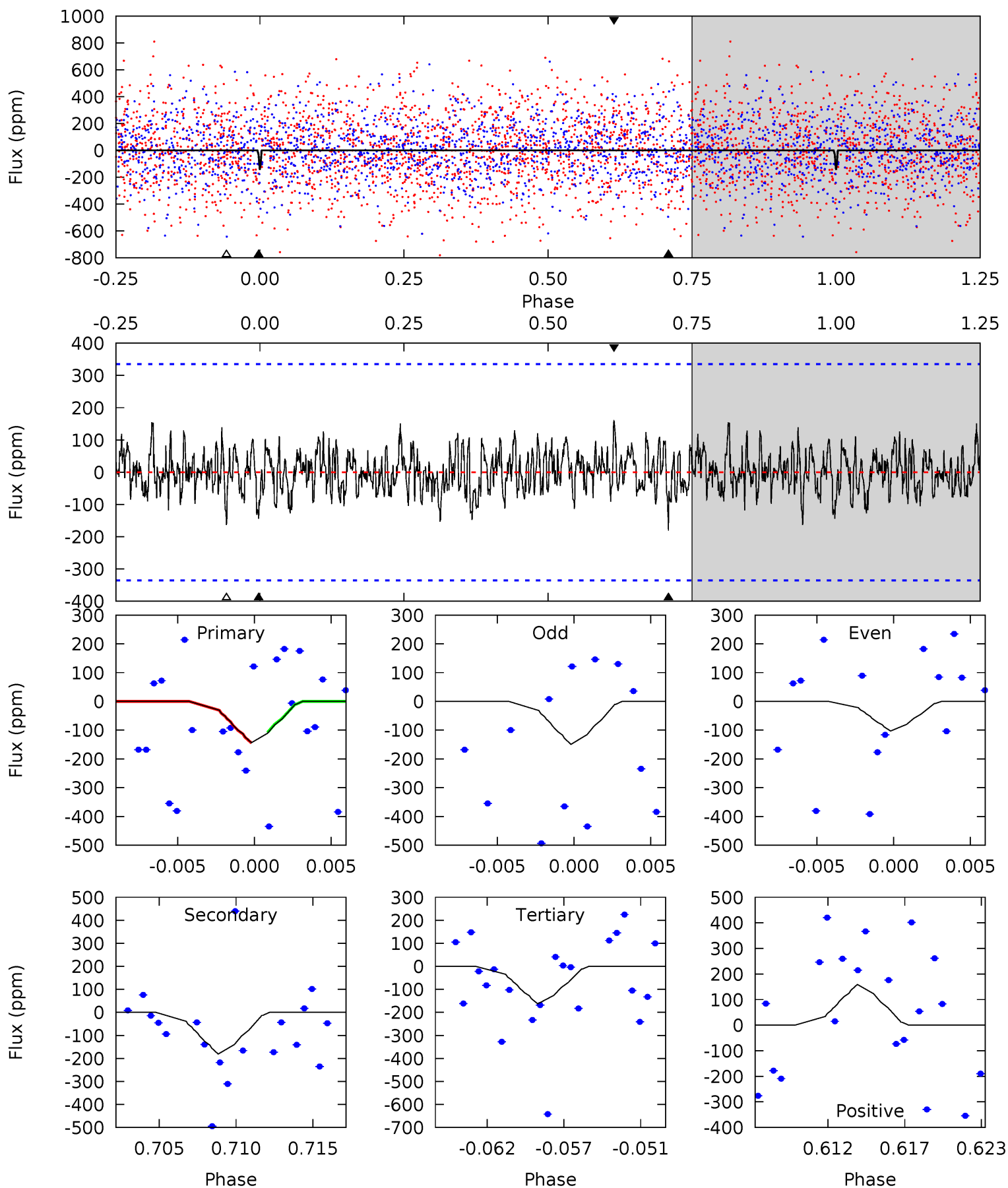
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.13	4.45	3.59	4.25	5.11	2.73	1.42	3.54	2.88	0.87	0.20	0.26	0.76	0.37	2.29



Alt Model-Shift Uniqueness Test

005475668-07, P = 6.970160 Days, E = 130.344758 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.21	2.78	2.50	2.44	5.15	2.80	0.82	-0.30	-0.24	0.28	0.34	0.34	1.00	0.47	0.25



Stellar Parameters For KIC 005475668

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8211^{+226}_{-340}	$4.077^{+0.165}_{-0.150}$	$-0.180^{+0.250}_{-0.300}$	$2.013^{+0.462}_{-0.462}$	$1.763^{+0.146}_{-0.271}$	$0.304^{+0.266}_{-0.122}$
	+3%/-4%	+4%/-4%	+139%/-167%	+23%/-23%	+8%/-15%	+87%/-40%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005475668-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-119 ± 27	$5.10^{+5.05}_{-3.31}$	2428^{+159}_{-171}	5340^{+4566}_{-1309}	18^{+127}_{-13}
Alt.	-181 ± 65	$8.53^{+5.54}_{-4.57}$	2429^{+163}_{-165}	4663^{+2177}_{-867}	$9.462^{+37.007}_{-6.234}$

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

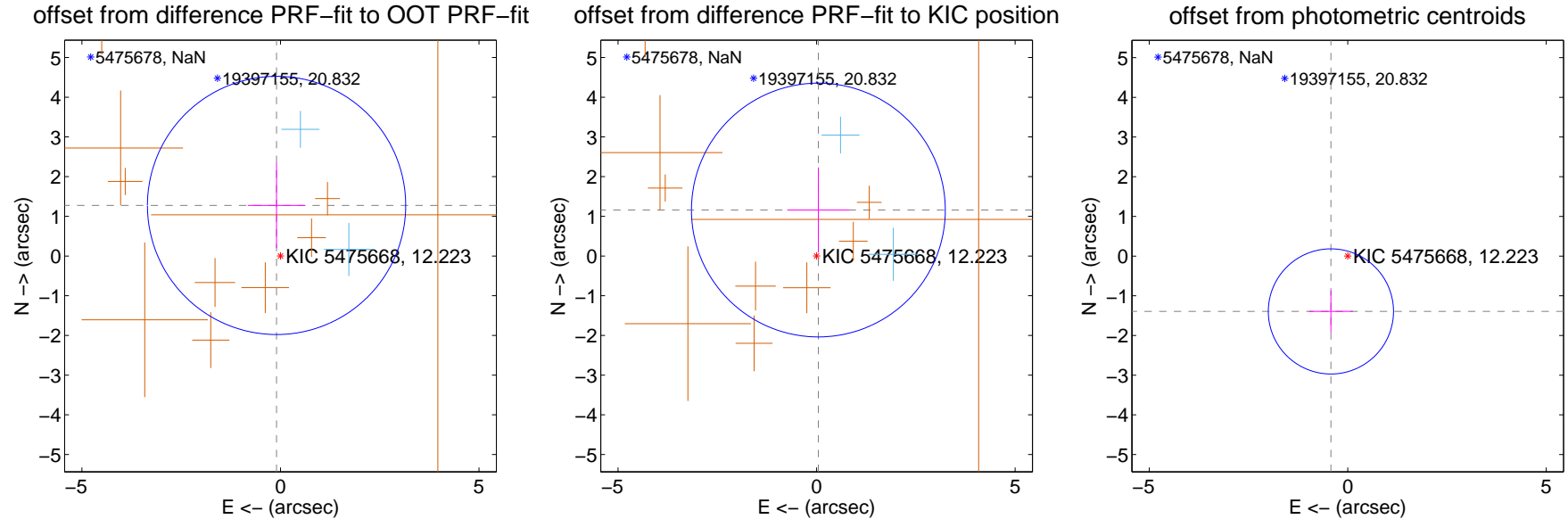
DV Centroid Data

Supplemental centroid analysis for 005475668-07. Kepler magnitude: 12.22. Transit SNR 13.15

There are 2 quarters with good PRF difference image offsets

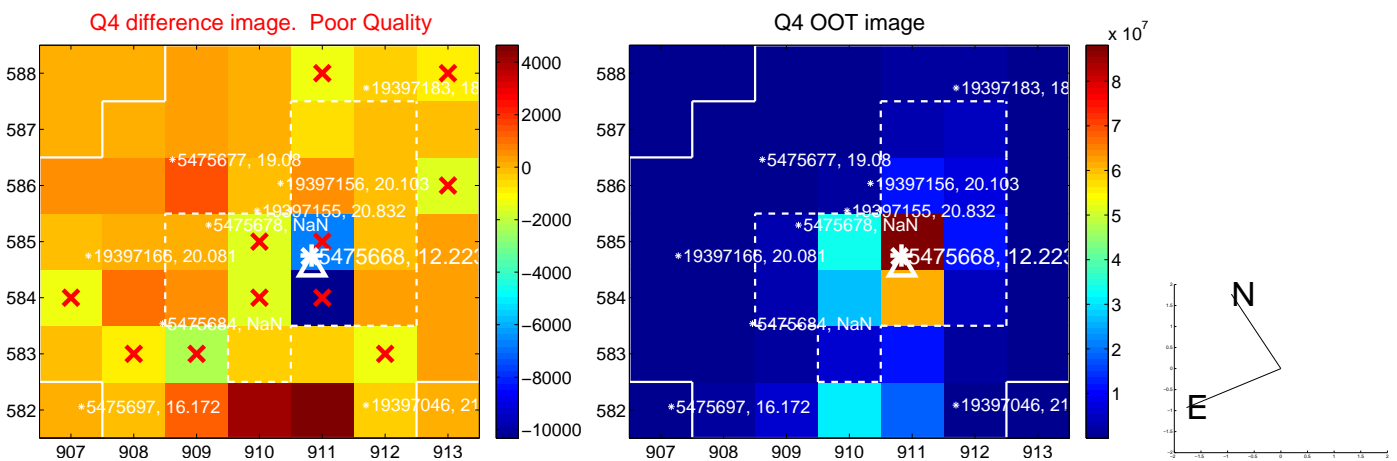
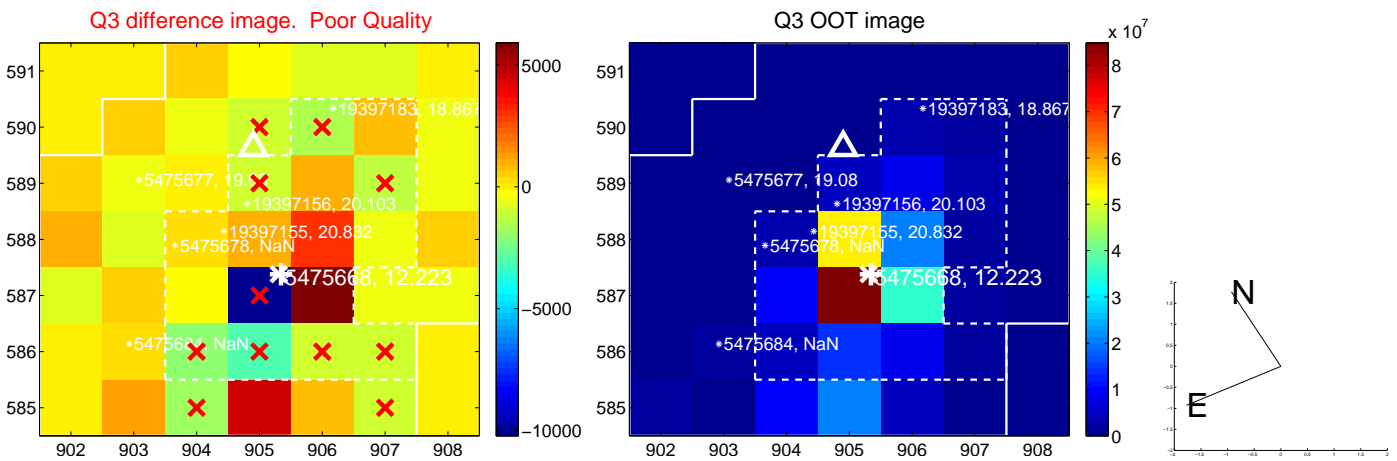
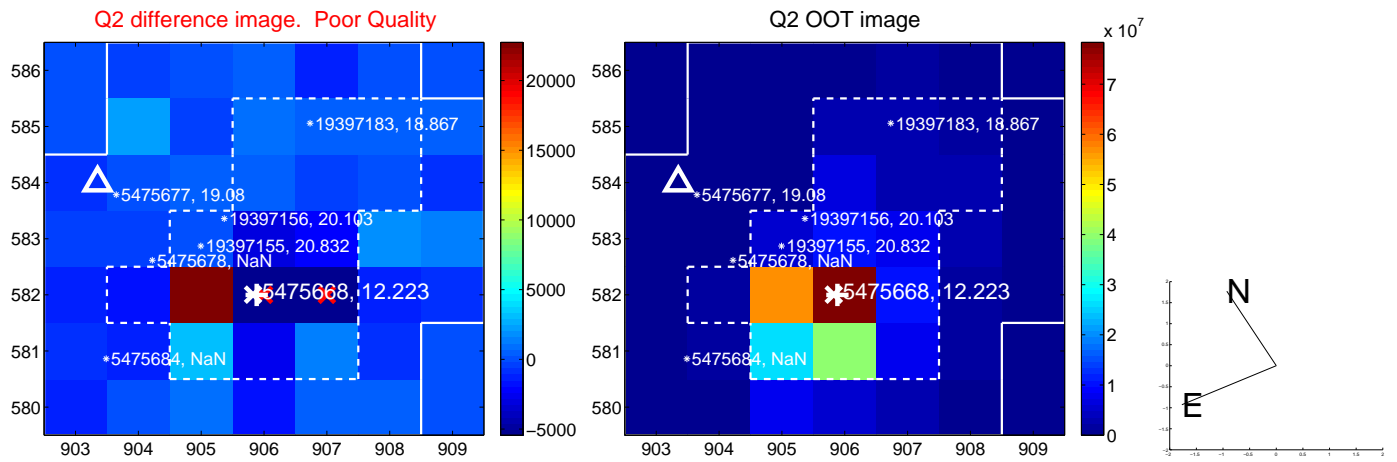
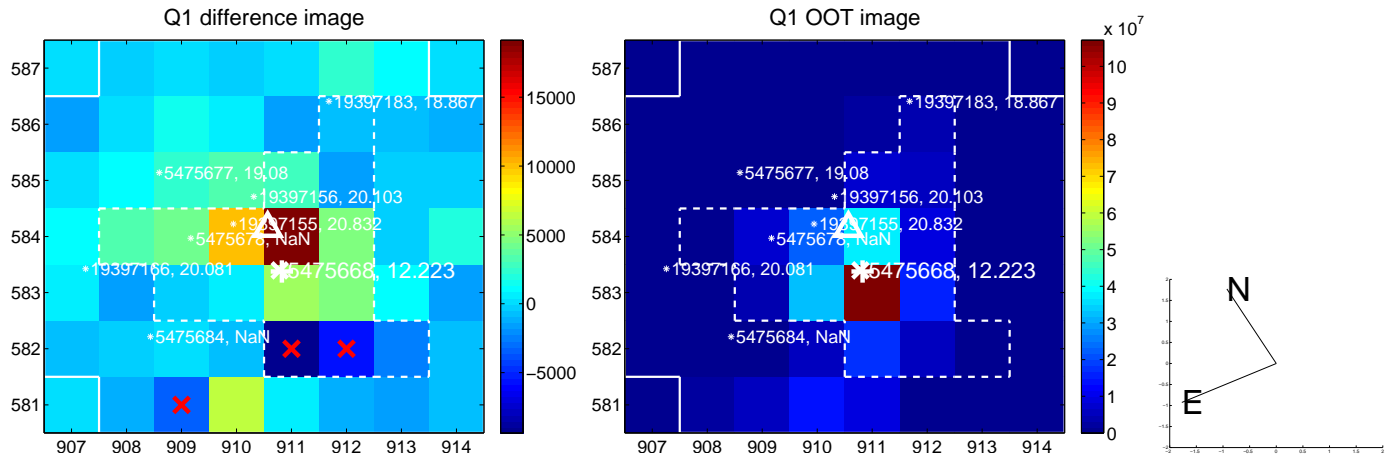
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.278 ± 1.084	1.18	0.098 ± 0.723	1.274 ± 1.073
PRF-fit source offset from KIC position	1.159 ± 1.065	1.09	-0.045 ± 0.783	1.158 ± 1.072
photometric centroid source offset	1.46 ± 0.53	2.77	0.42 ± 0.55	-1.39 ± 0.52

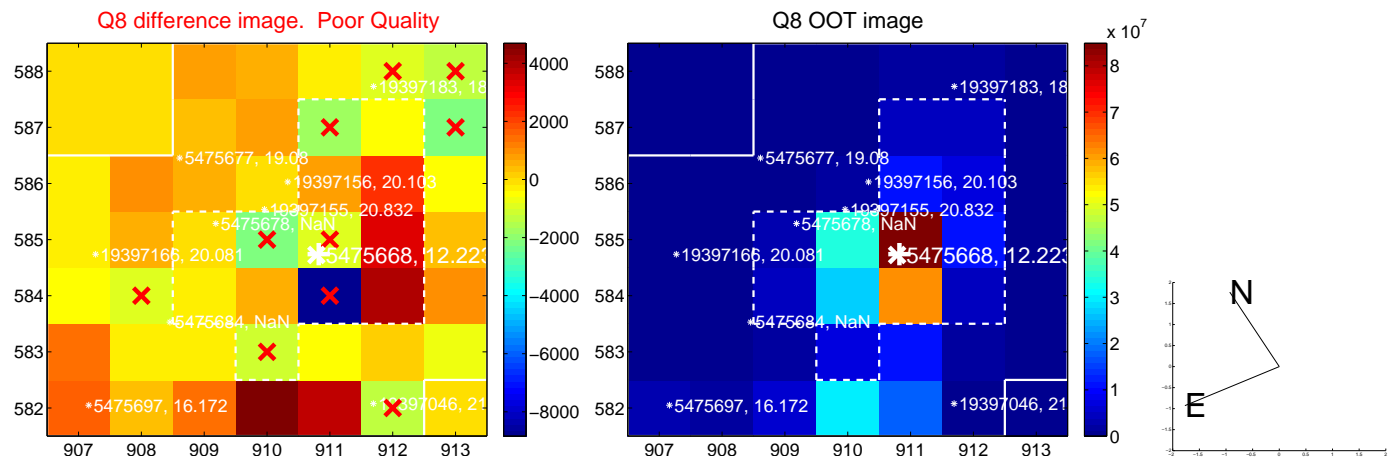
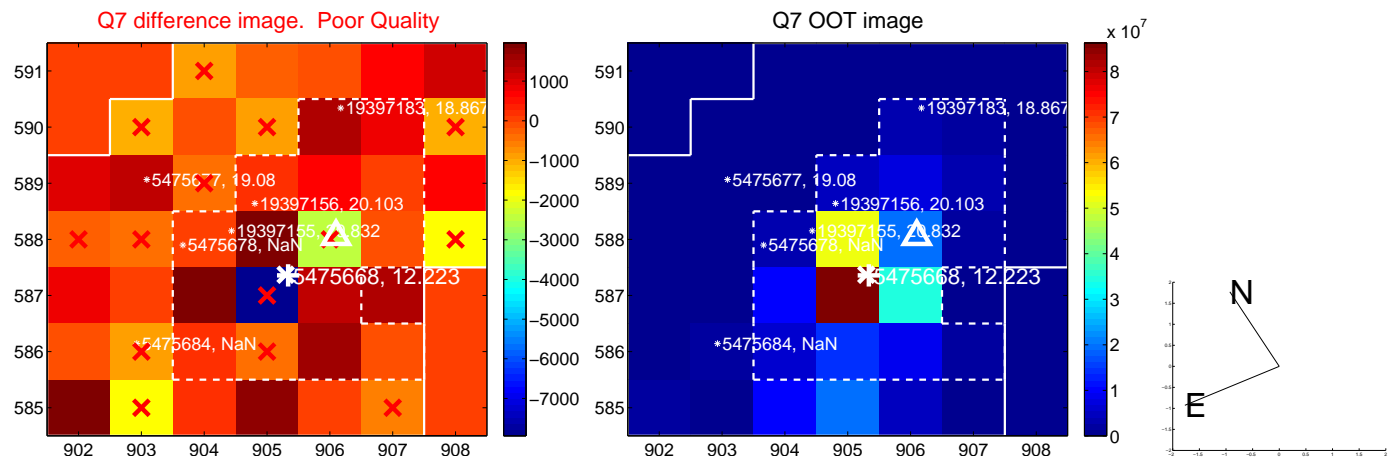
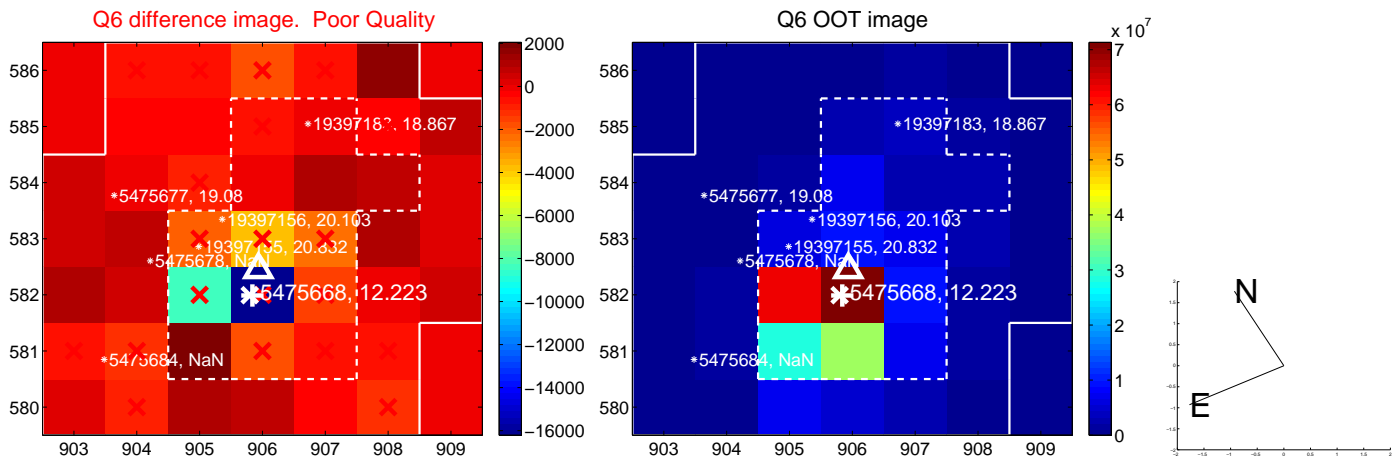
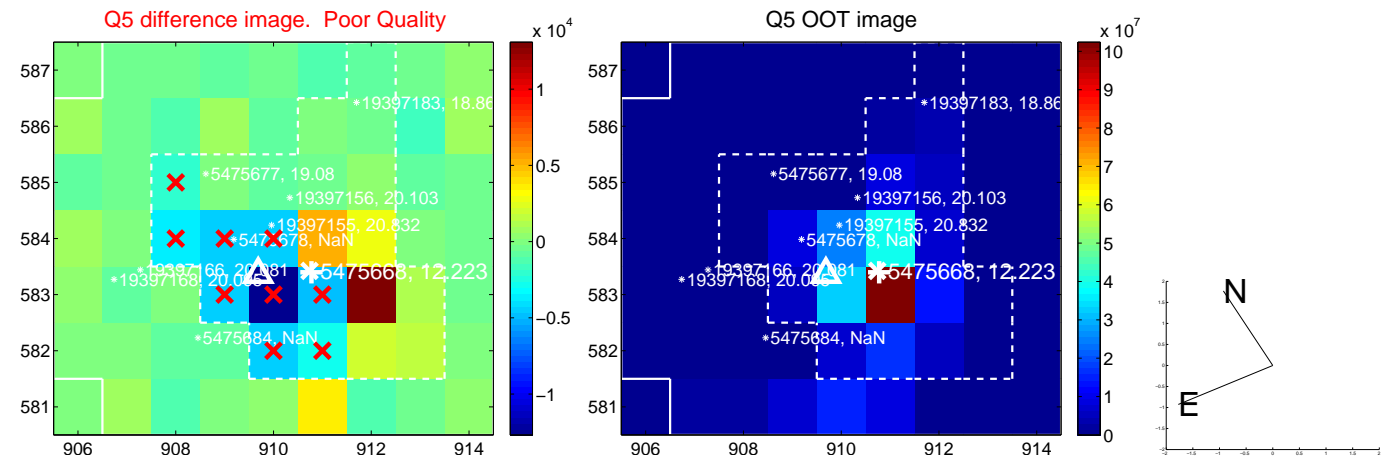


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

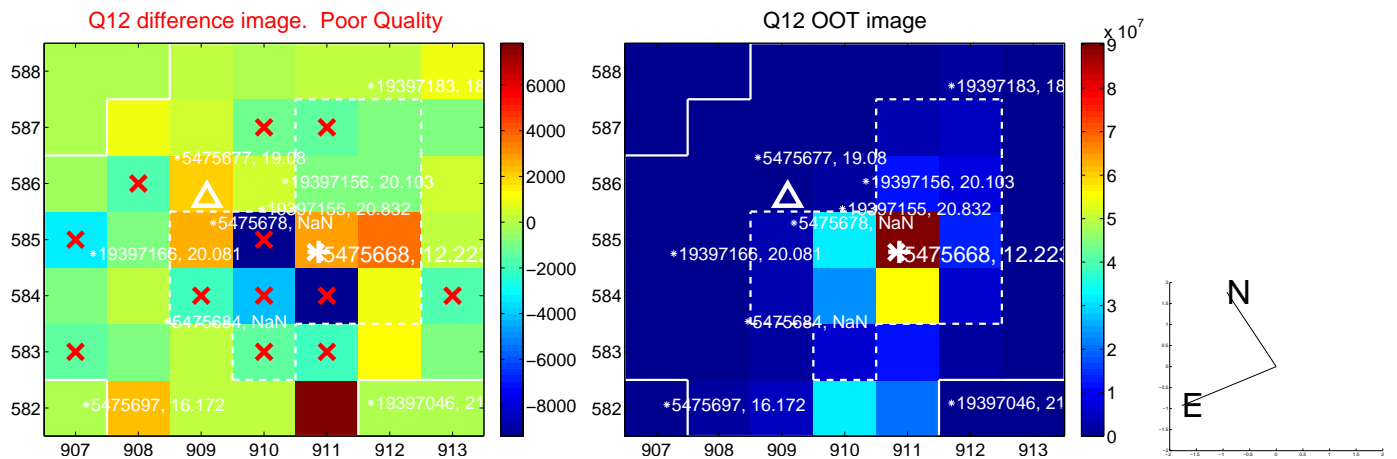
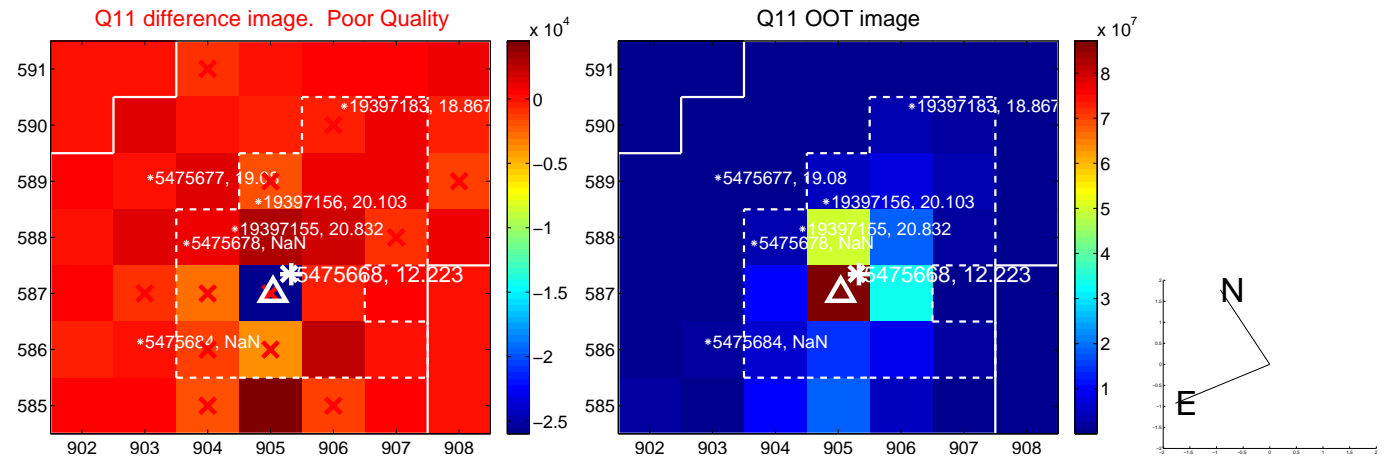
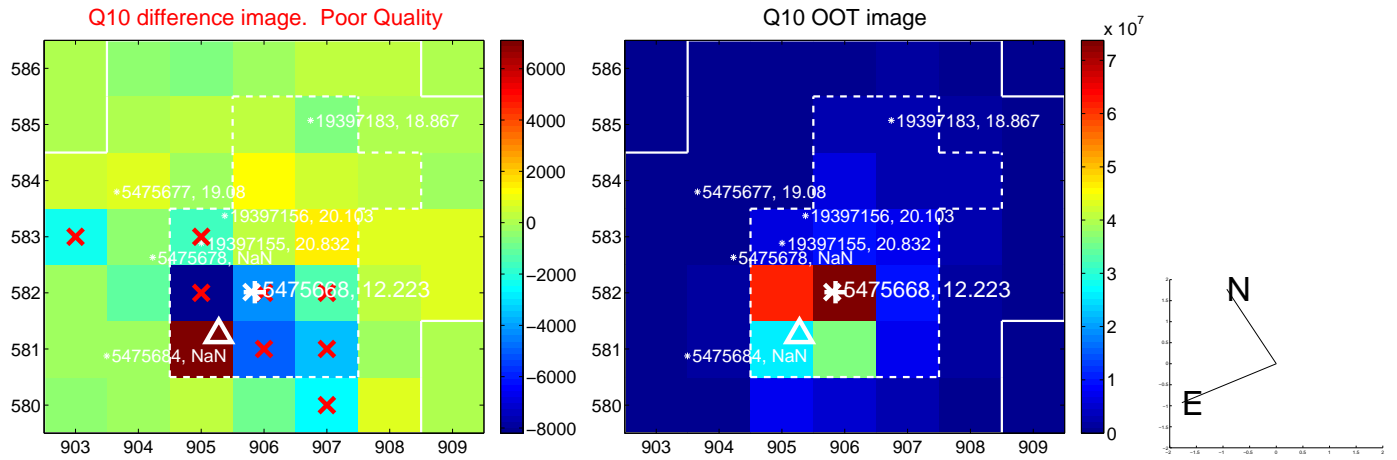
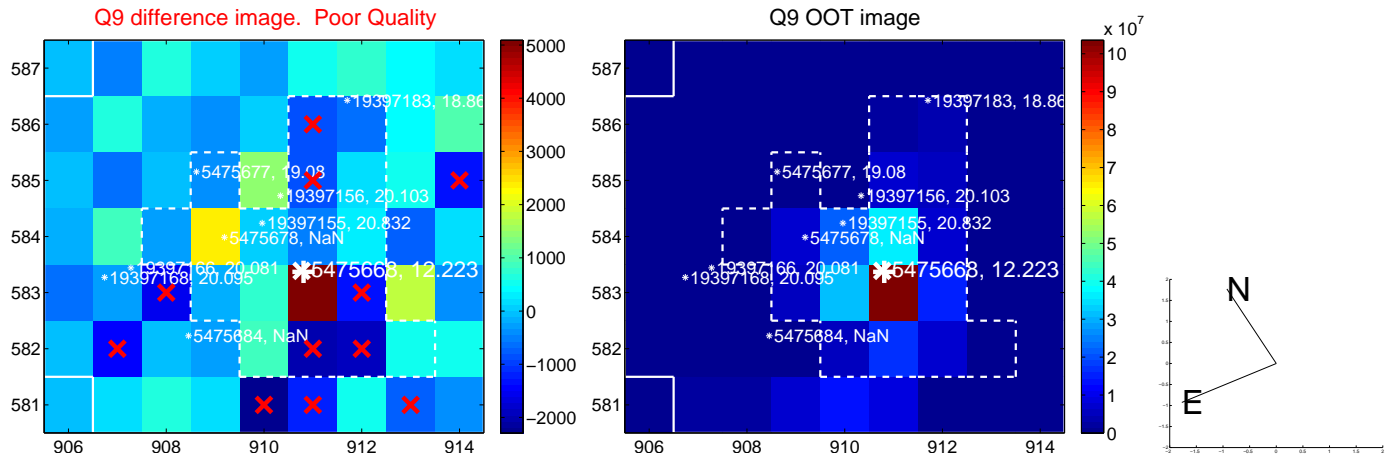
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



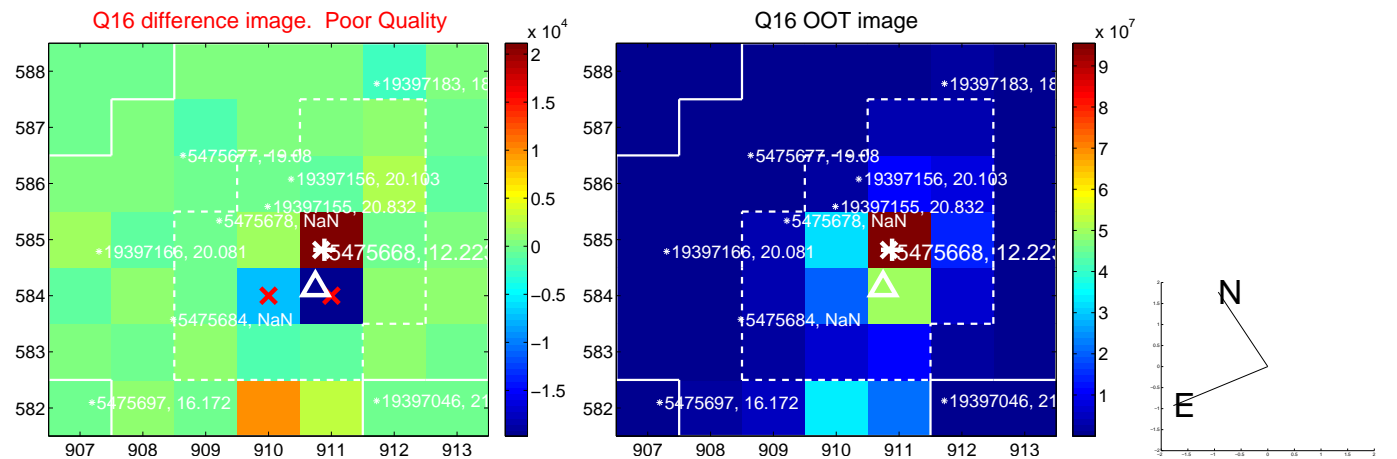
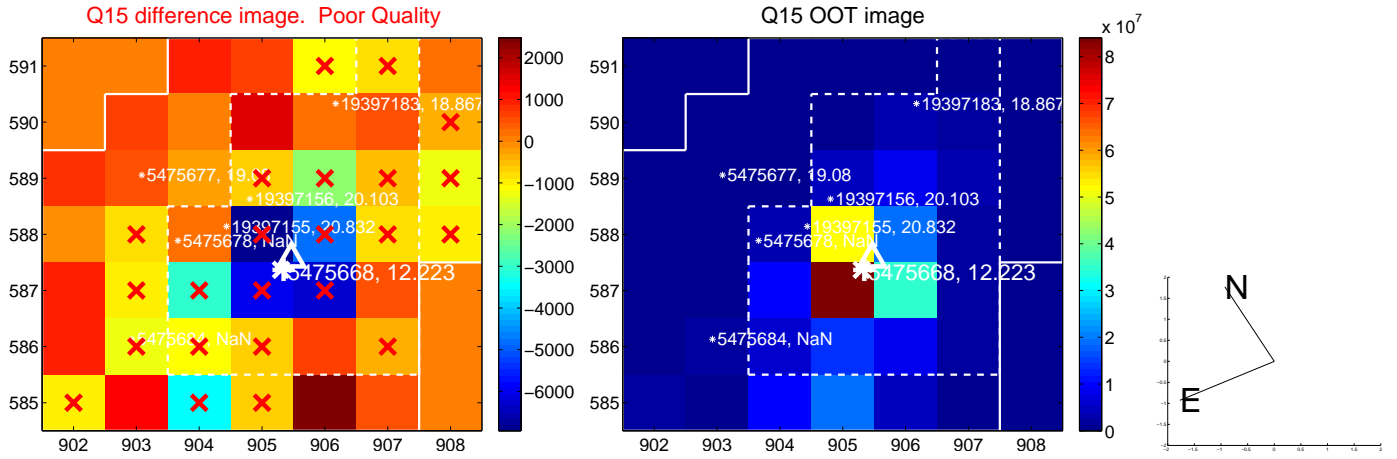
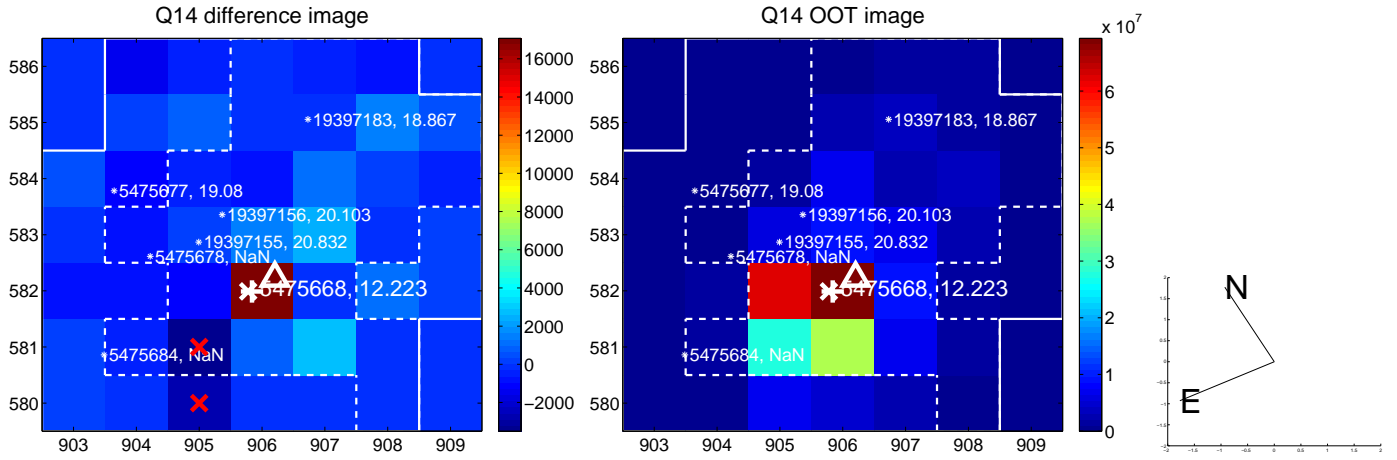
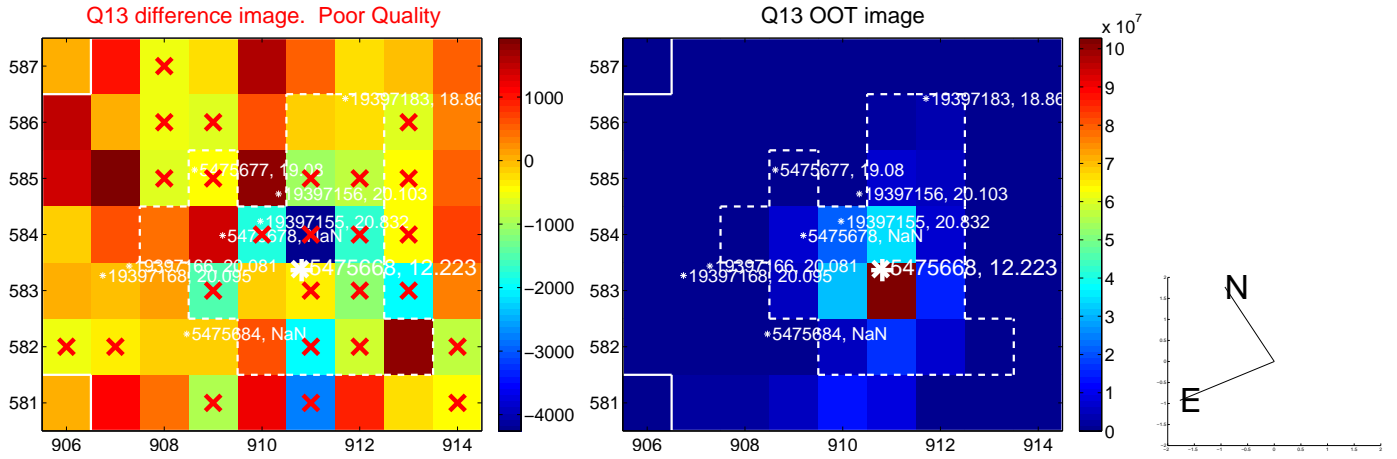
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



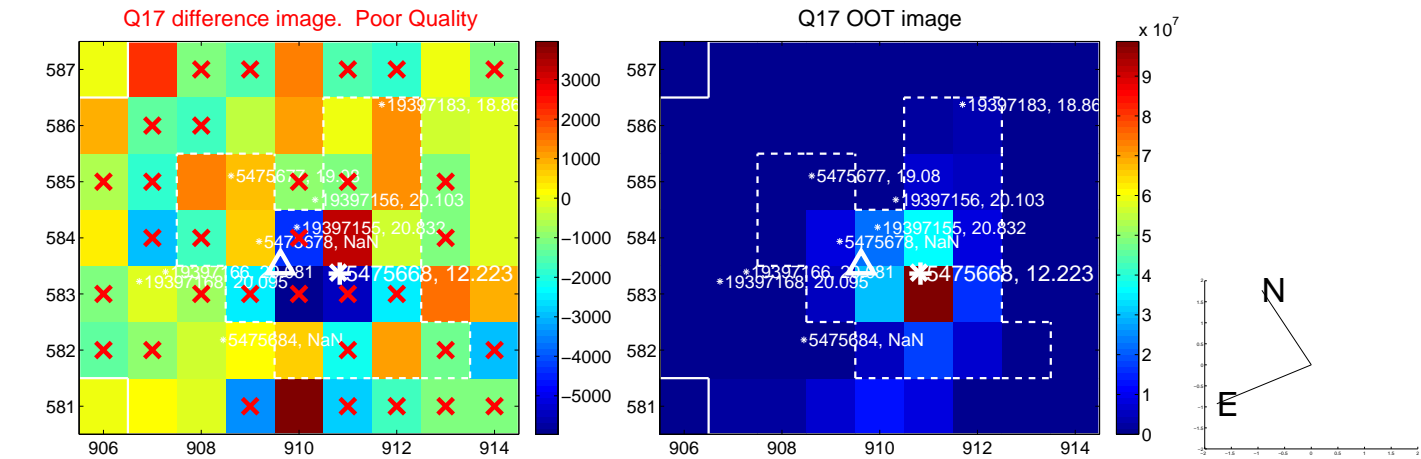
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



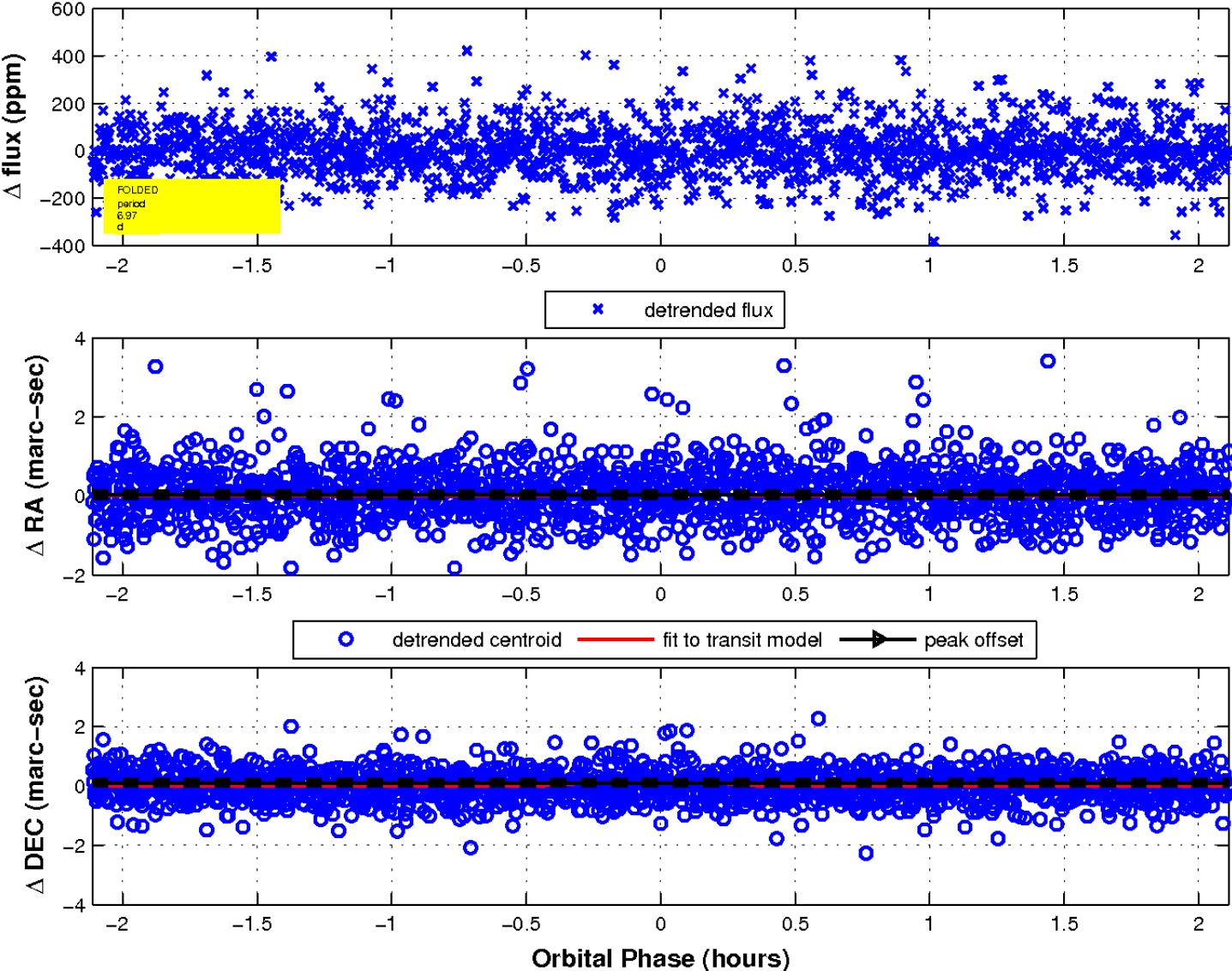
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 7 of 7



UKIRT Image

