

KIC 008881883

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})
008881883-01	OBS	No	3.323657	131.718506	35.6	6.269	13.1	11.6	4.46	10949	3.49	61581.68
008881883-02	OBS	No	3.323760	133.734846	75.6	6.000	9.1	-1.0	4.46	10949	4.00	61579.13
008881883-03	OBS	No	228.198252	238.850933	412.2	2.685	8.4	8.3	4.46	10949	10.48	219.04
008881883-04	OBS	No	185.582504	247.688557	204.1	2.648	7.8	4.0	4.46	10949	7.35	288.55
008881883-05	OBS	No	401.413898	252.776667	114.1	0.860	7.7	1.9	4.46	10949	5.50	103.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008881883-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008881883-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
008881883-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008881883-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008881883-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—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.

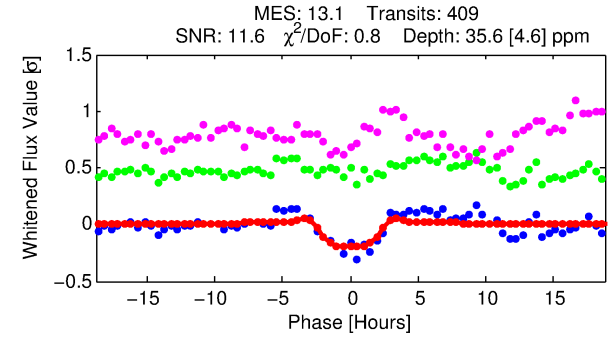
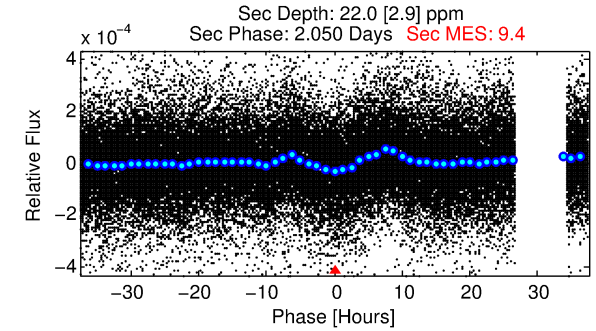
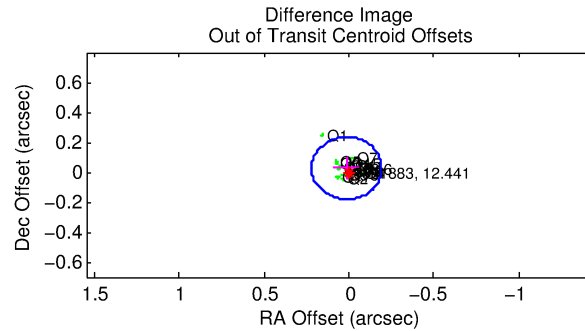
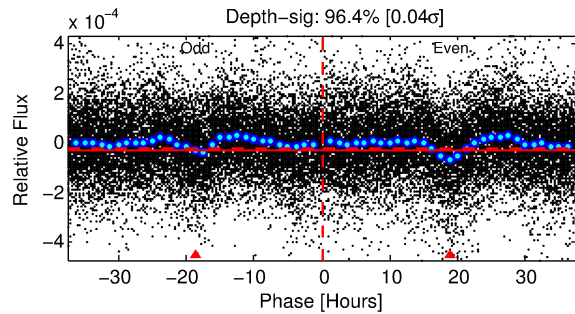
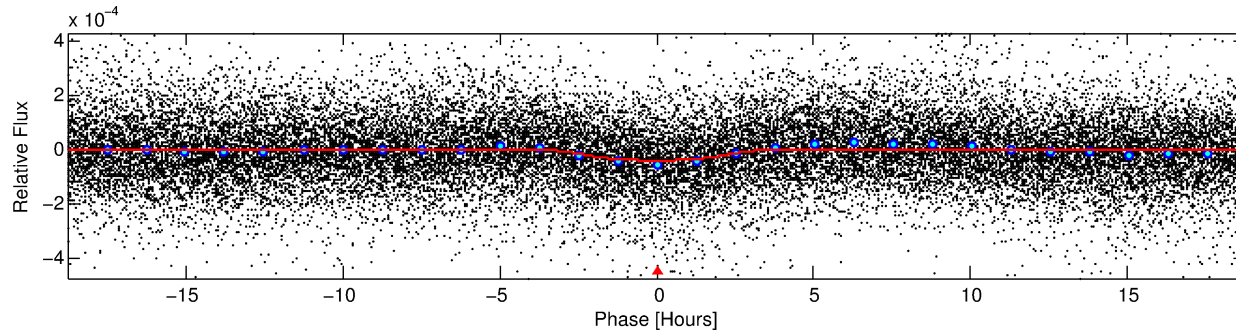
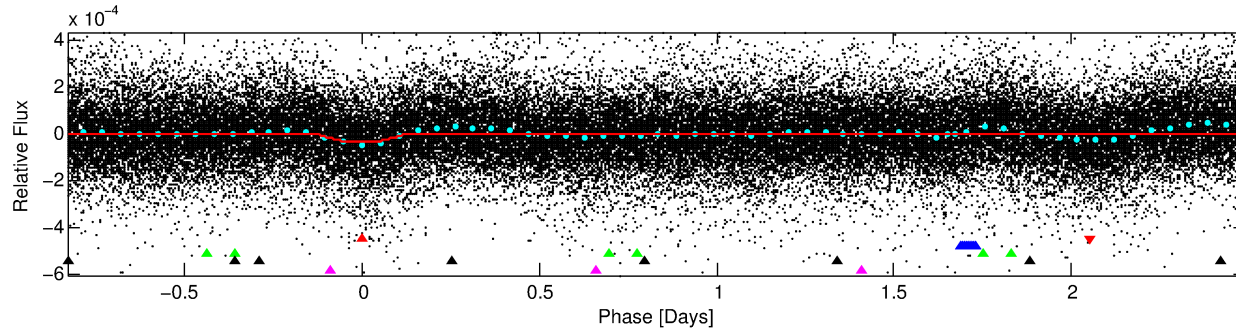
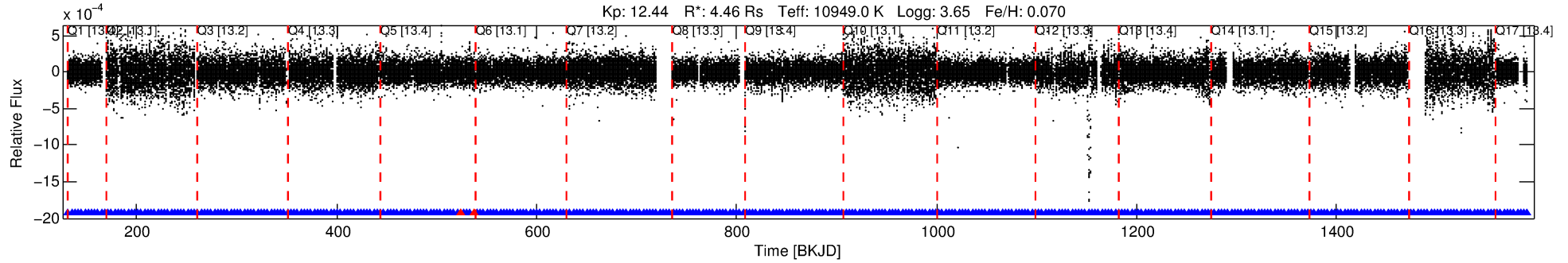
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008881883-01

No Significant Match Found

DV One-Page Summary

KIC: 8881883 Candidate: 1 of 5 Period: 3.324 d



DV Fit Results:

Period = 3.32366 [0.00004] d
Epoch = 131.7185 [0.0094] BKJD
Rp/R* = 0.0072 [0.0005]
a/R* = 1.21 [0.05]
b = 0.99 [0.00]
Seff = 61581.68 [44601.82]
Teff = 4017 [727] K
Rp = 3.49 [1.52] Re
a = 0.0646 [0.0276] AU
Ag = 4.14 [3.02] [1.04 σ]
Teffp = 8861 [611] K [5.10 σ]

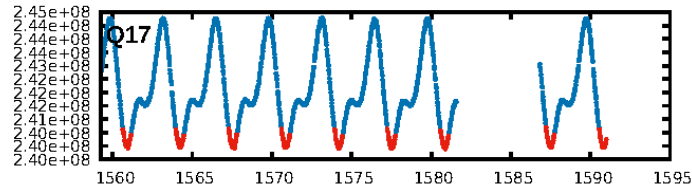
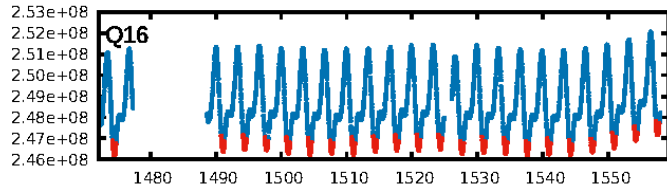
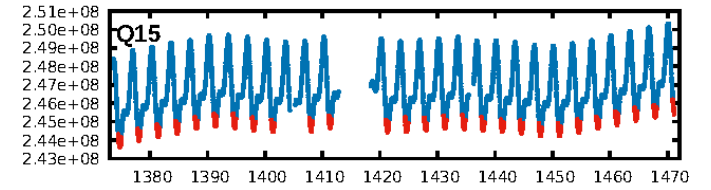
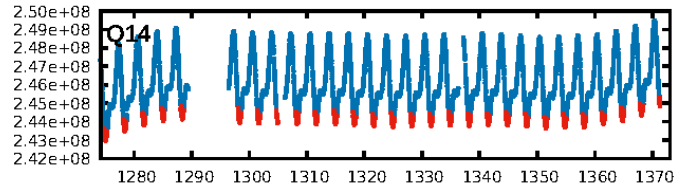
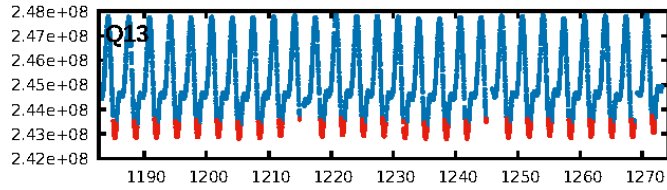
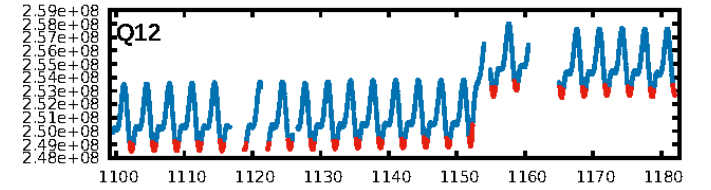
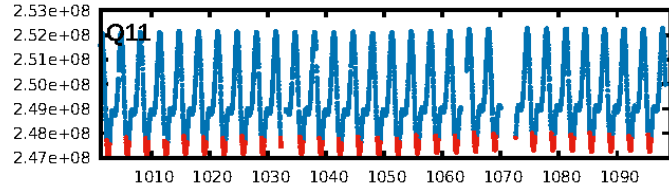
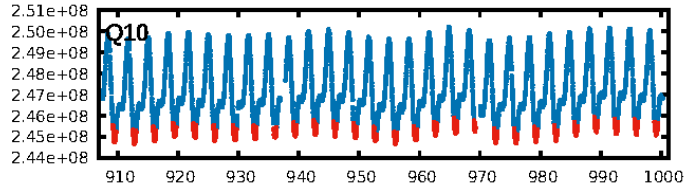
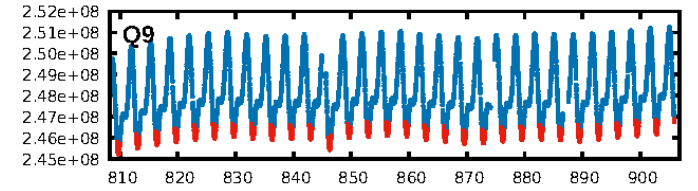
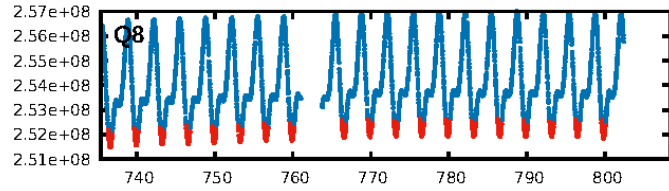
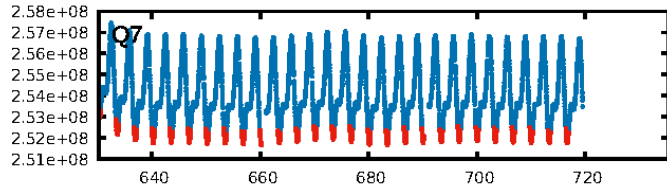
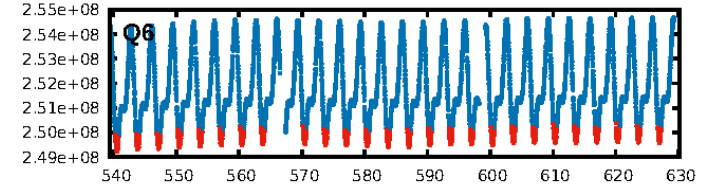
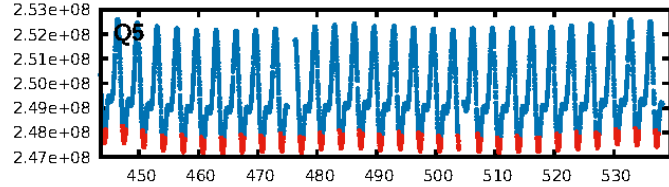
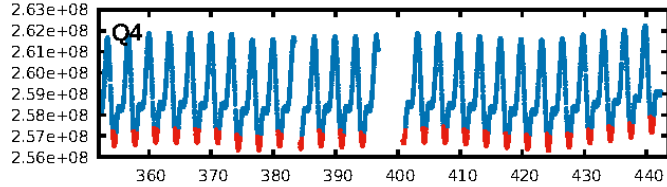
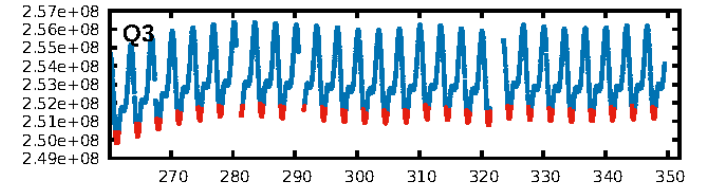
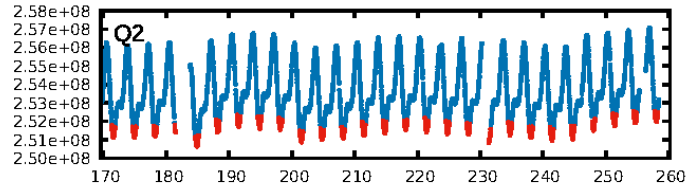
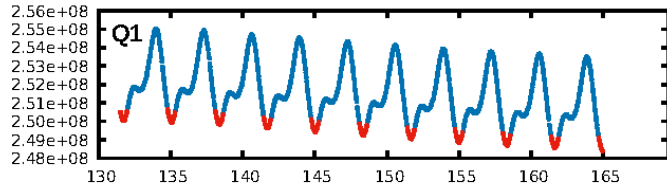
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.22e-29
RollingBand-fgt: 0.99 [387/389]
GhostDiagnostic-chr: 1.502
Centroid-sig: N/A
Centroid-so: 0.798 arcsec [1.00 σ]
OotOffset-rm: 0.030 arcsec [0.44 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.078 arcsec [1.15 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

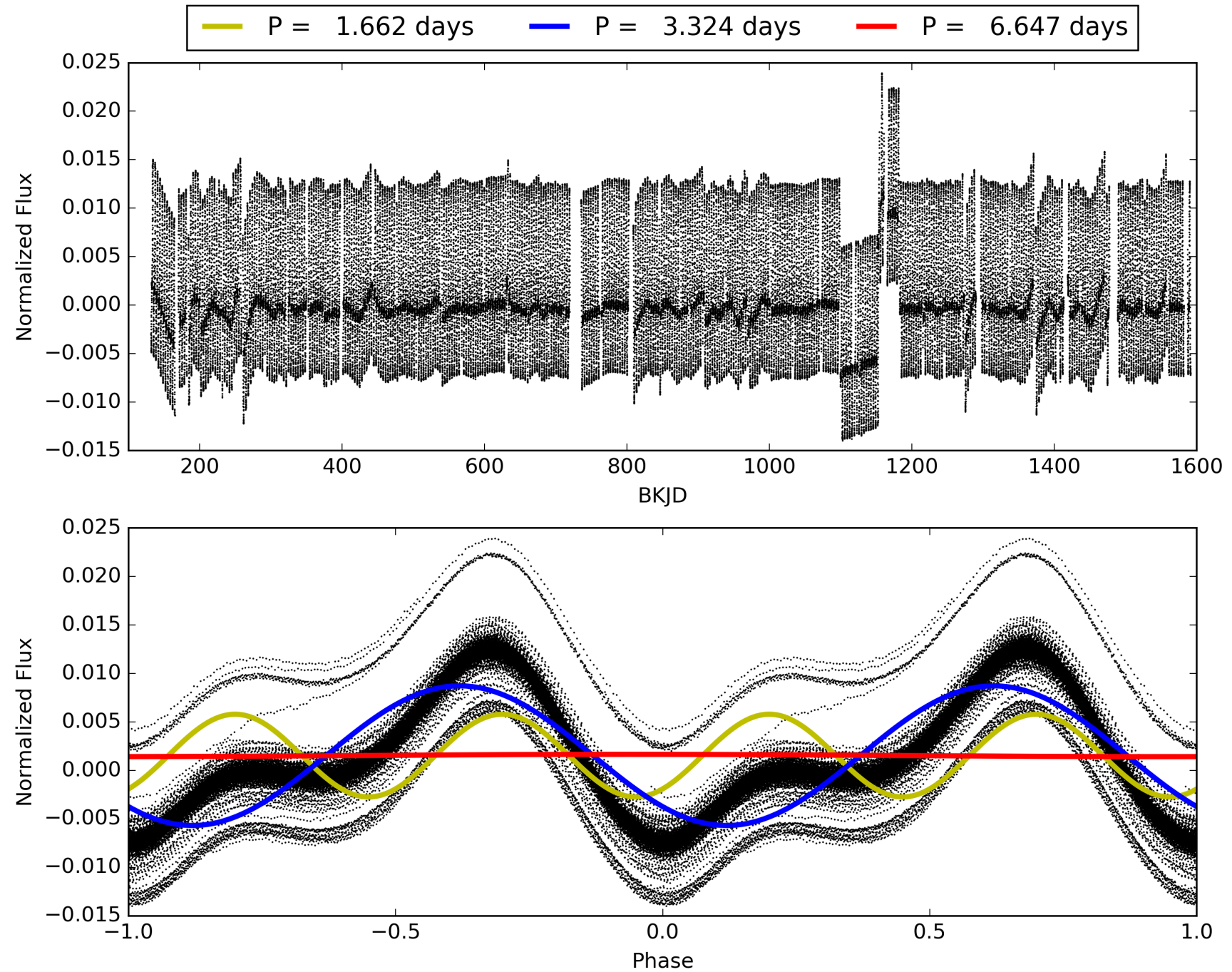
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:09:08 Z

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

TCE 008881883-01, PDC Light Curves

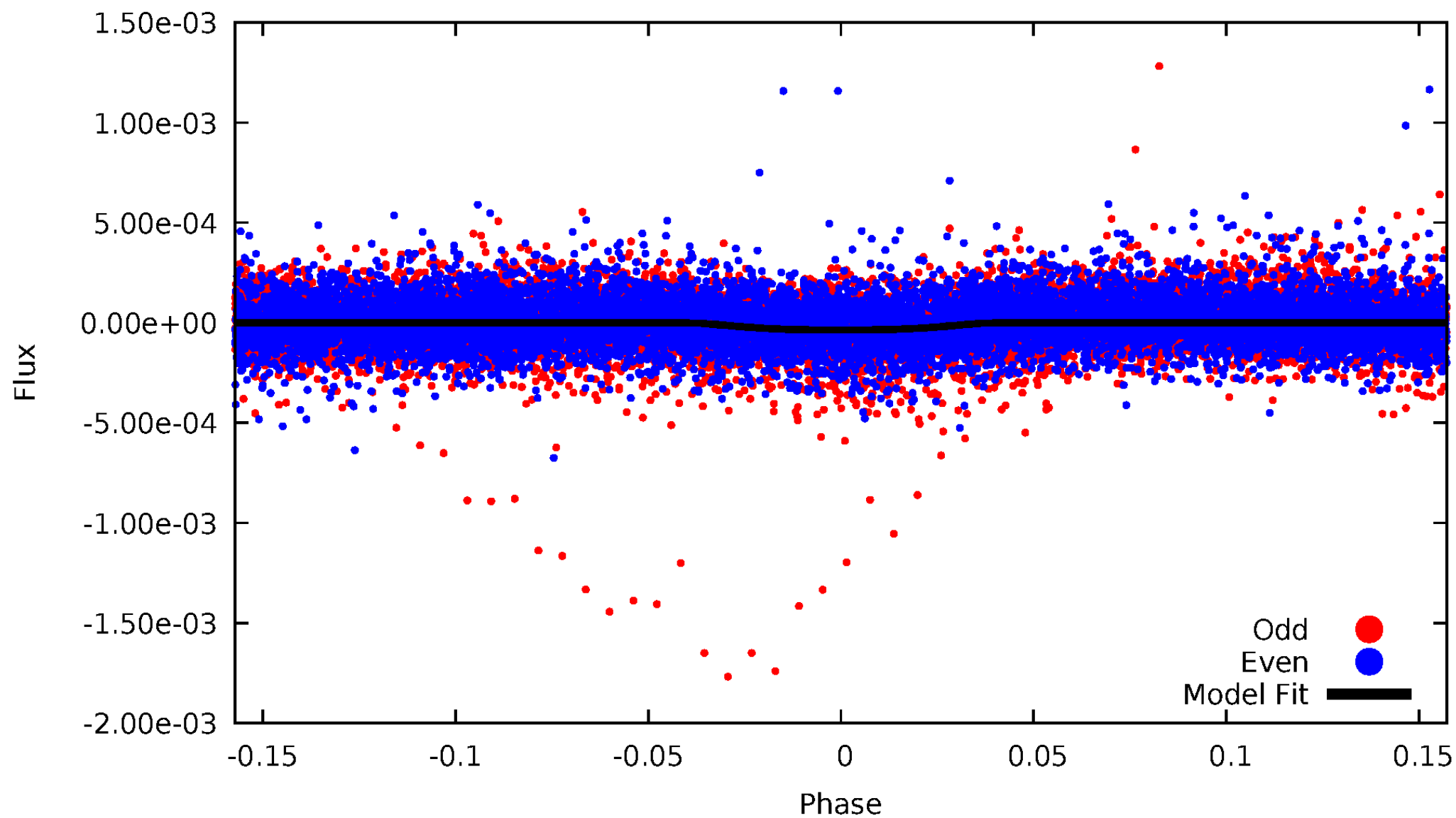


TCE 008881883-01



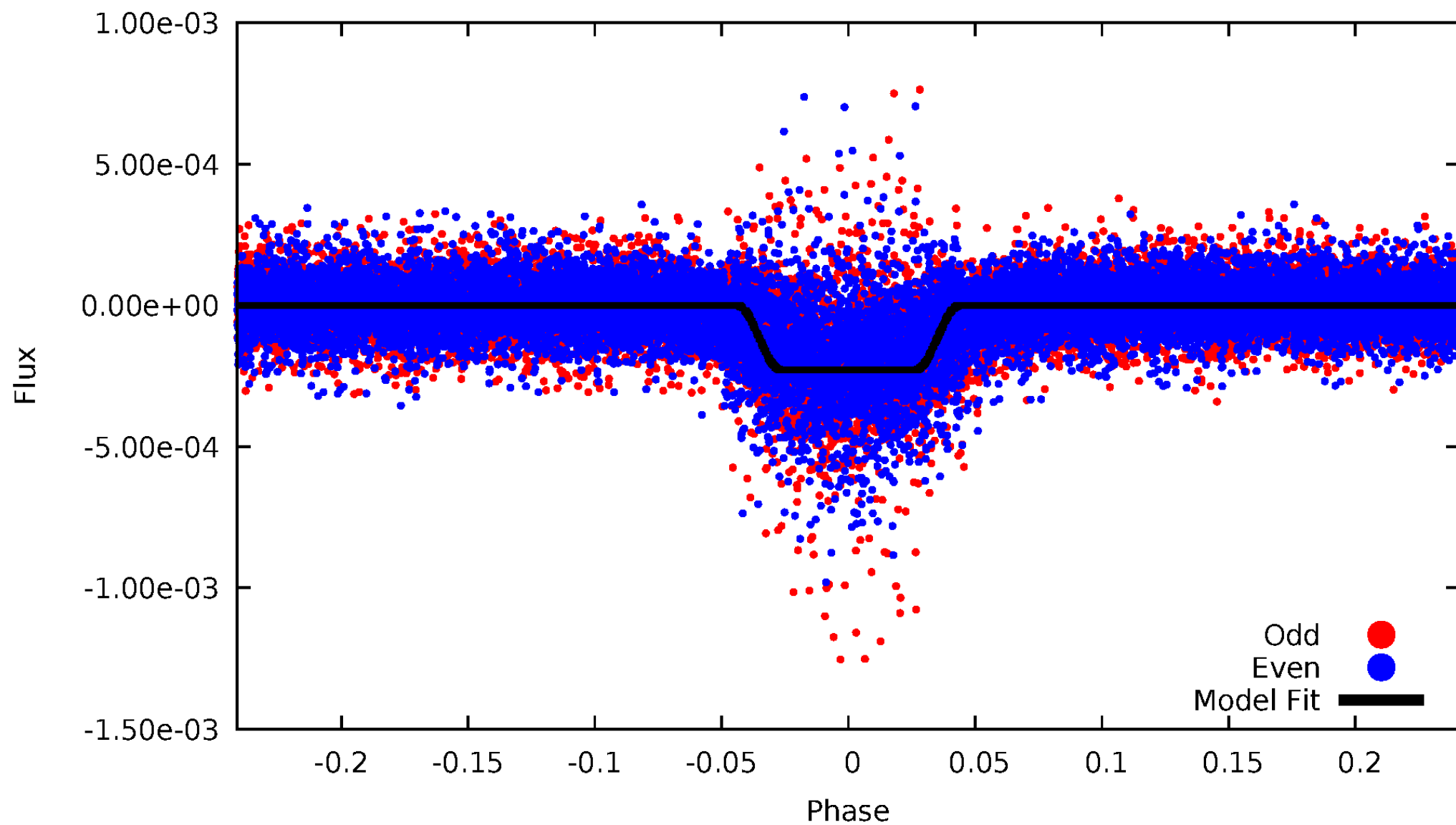
DV Odd/Even

TCE 008881883-01



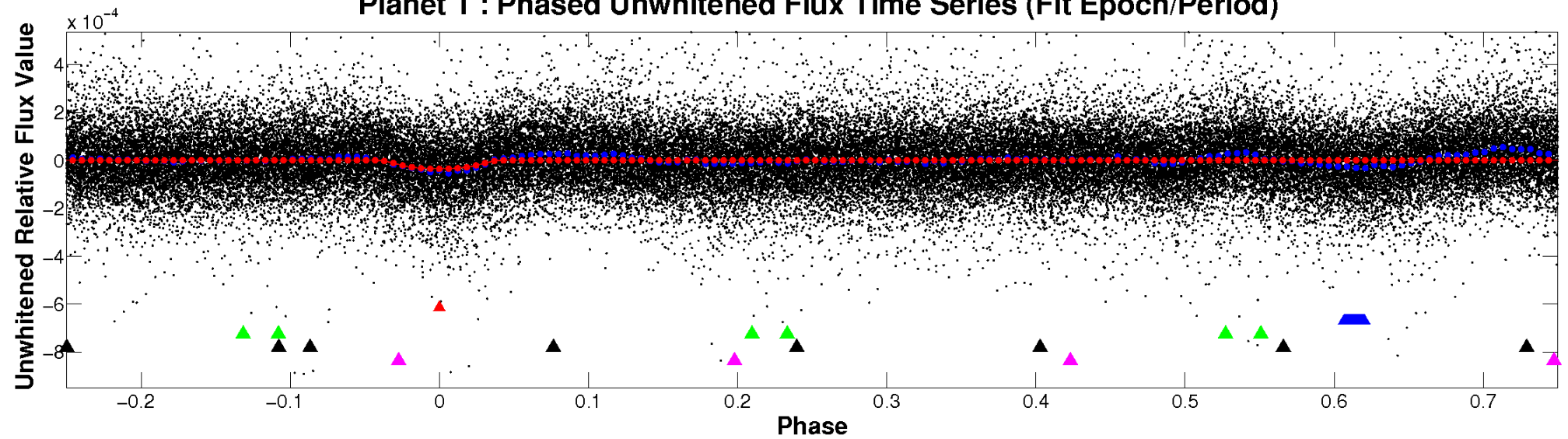
ALT Odd/Even

TCE 008881883-01

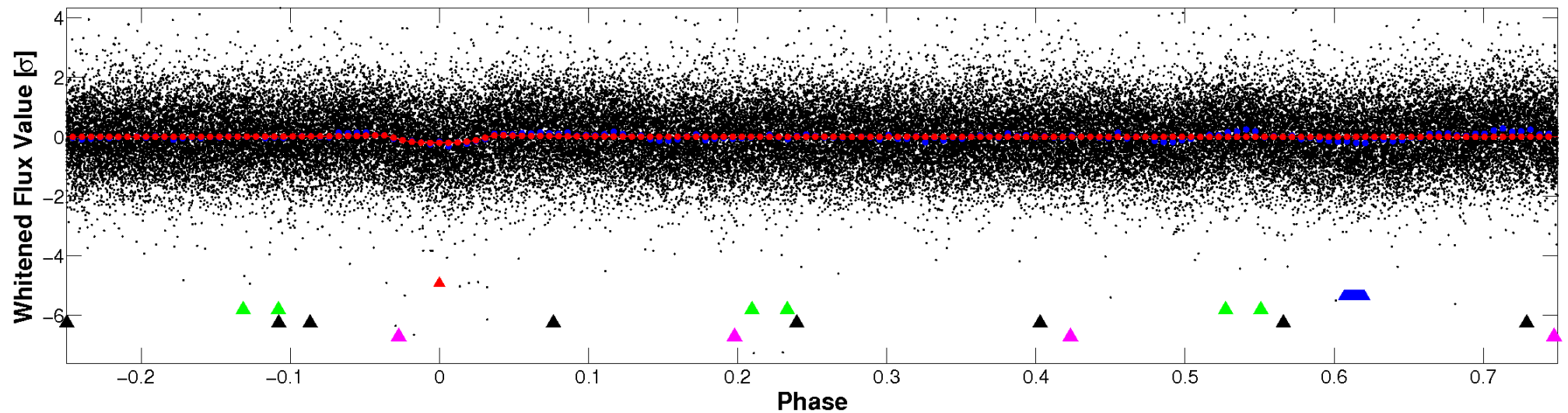


Non-Whitened Vs. Whitened Light Curve

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

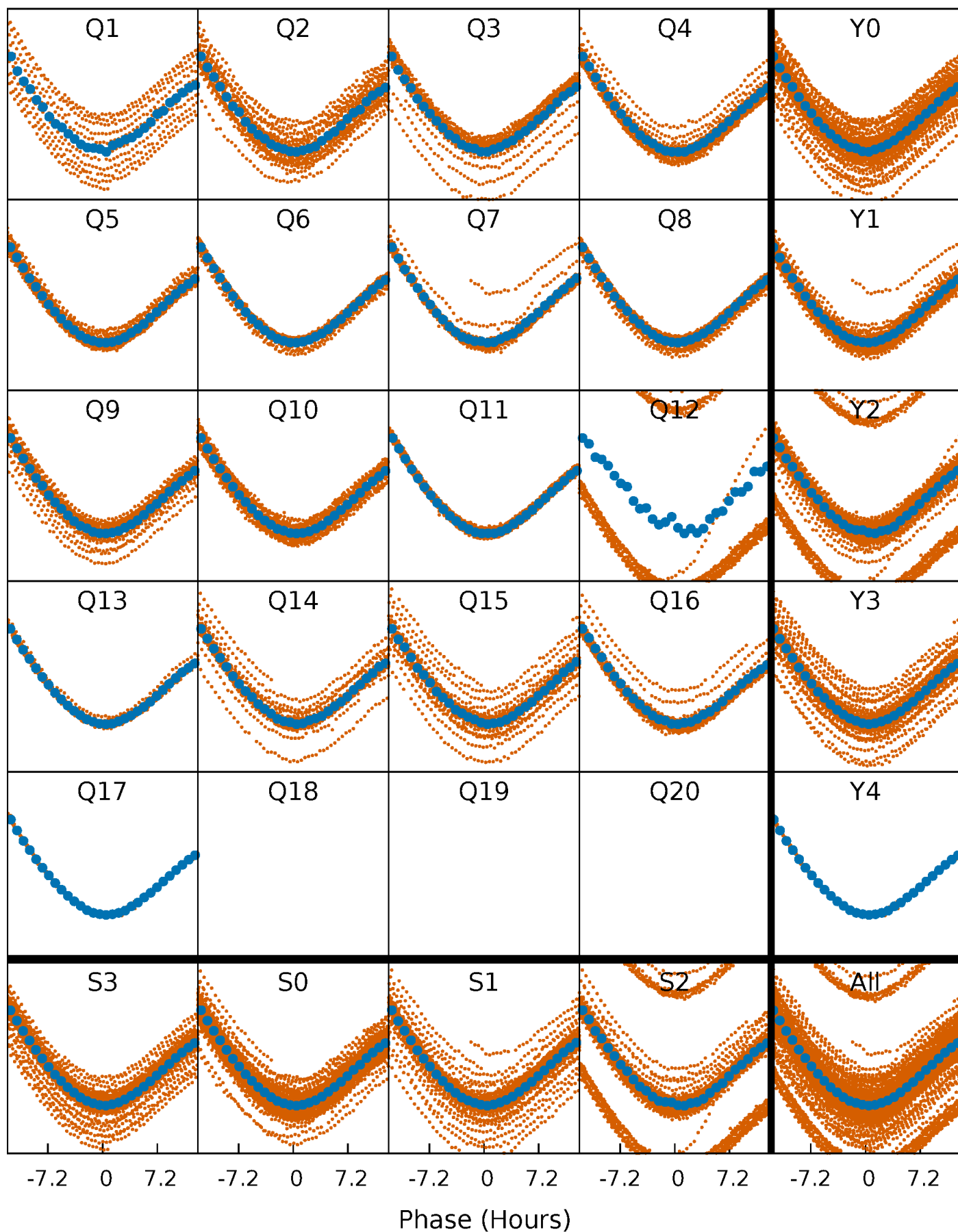


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



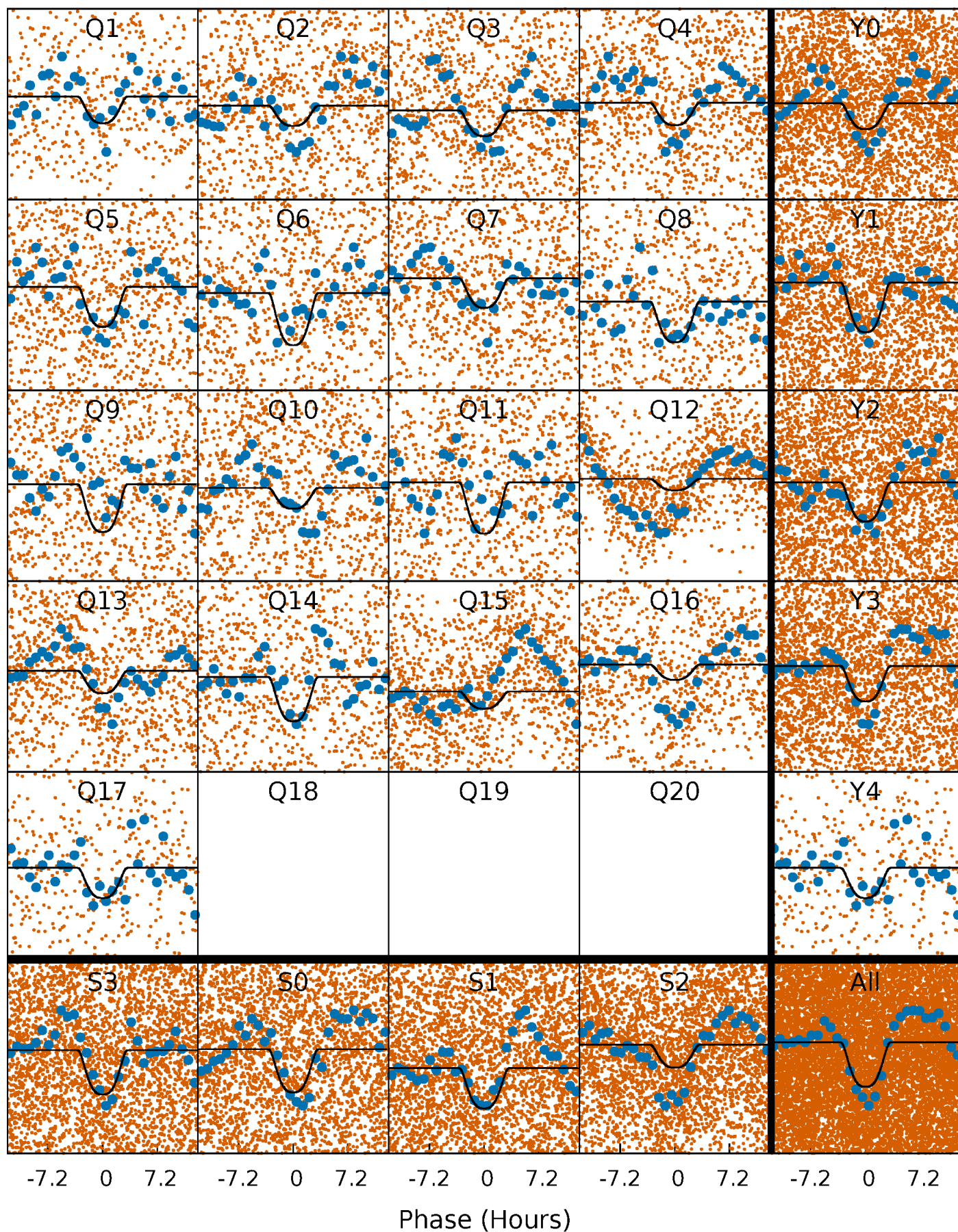
PDC Quarter-Phased Transit Curves

TCE 008881883-01 P= 3.323657 Days $T_0=131.718506$ (BKJD)



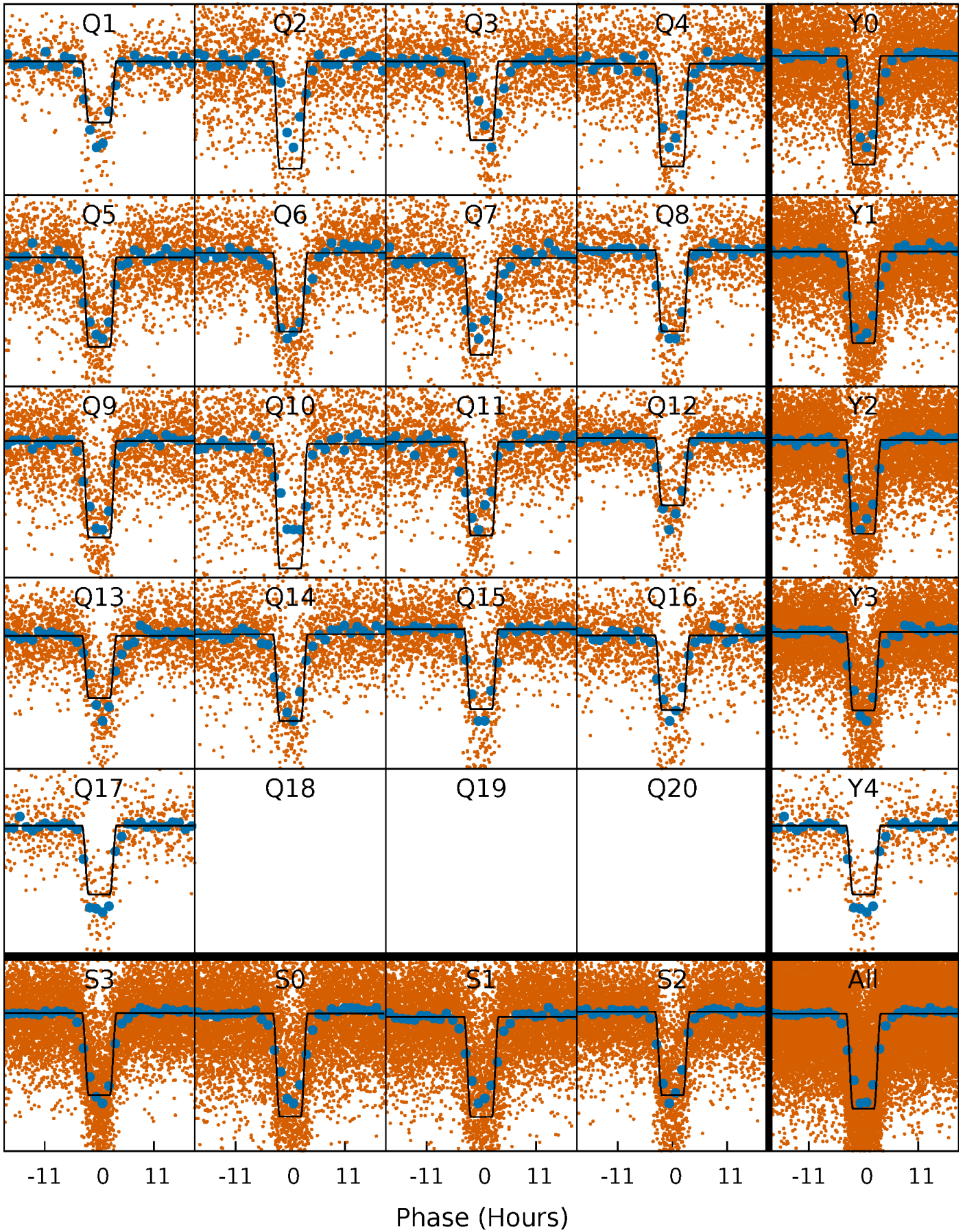
DV Quarter-Phased Transit Curves

TCE 008881883-01 P= 3.323657 Days $T_0=131.718506$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

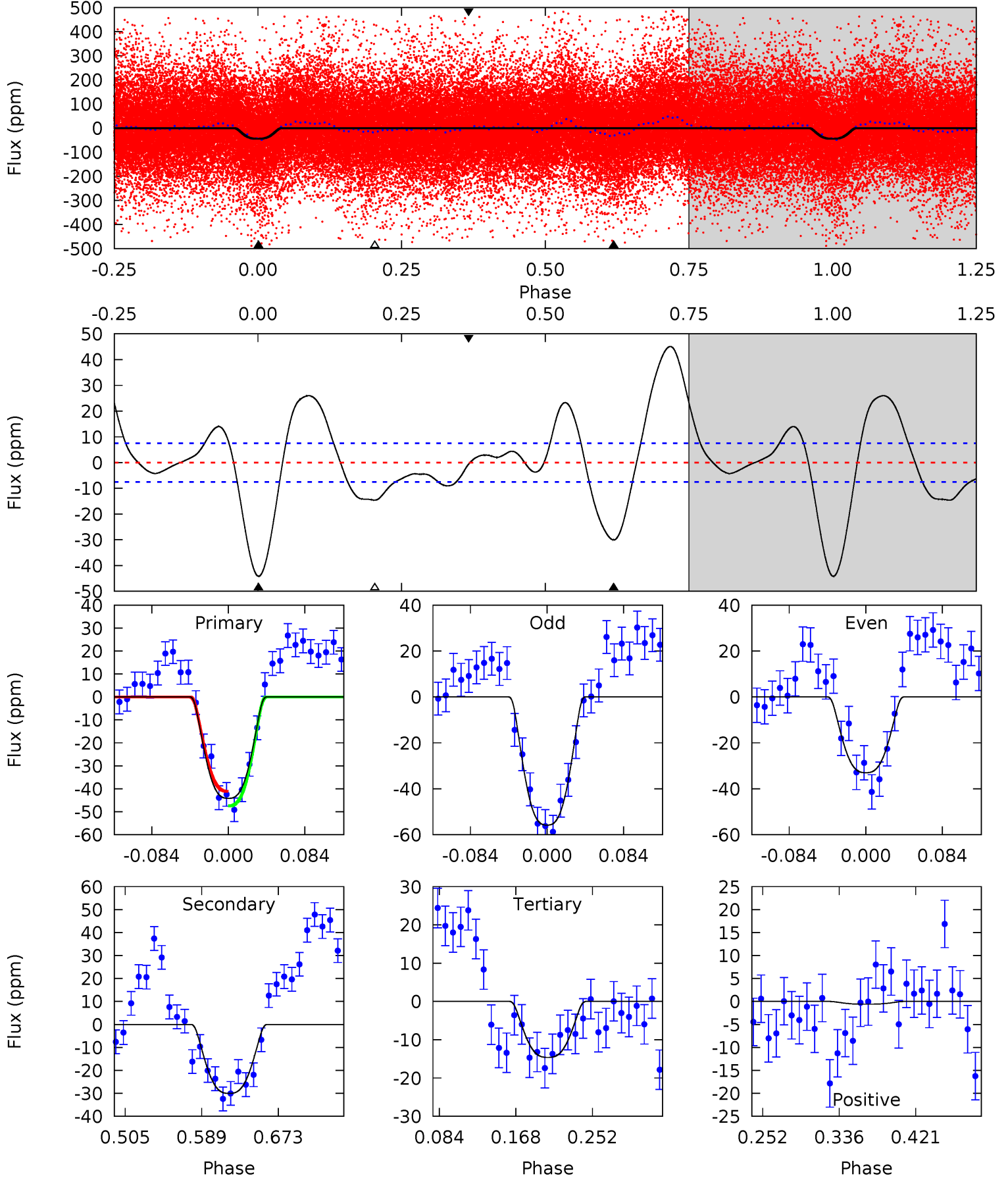
TCE 008881883-01 P= 3.323690 Days $T_0=131.718542$ (BKJD)



DV Model-Shift Uniqueness Test

008881883-01, P = 3.323657 Days, E = 128.394849 Days

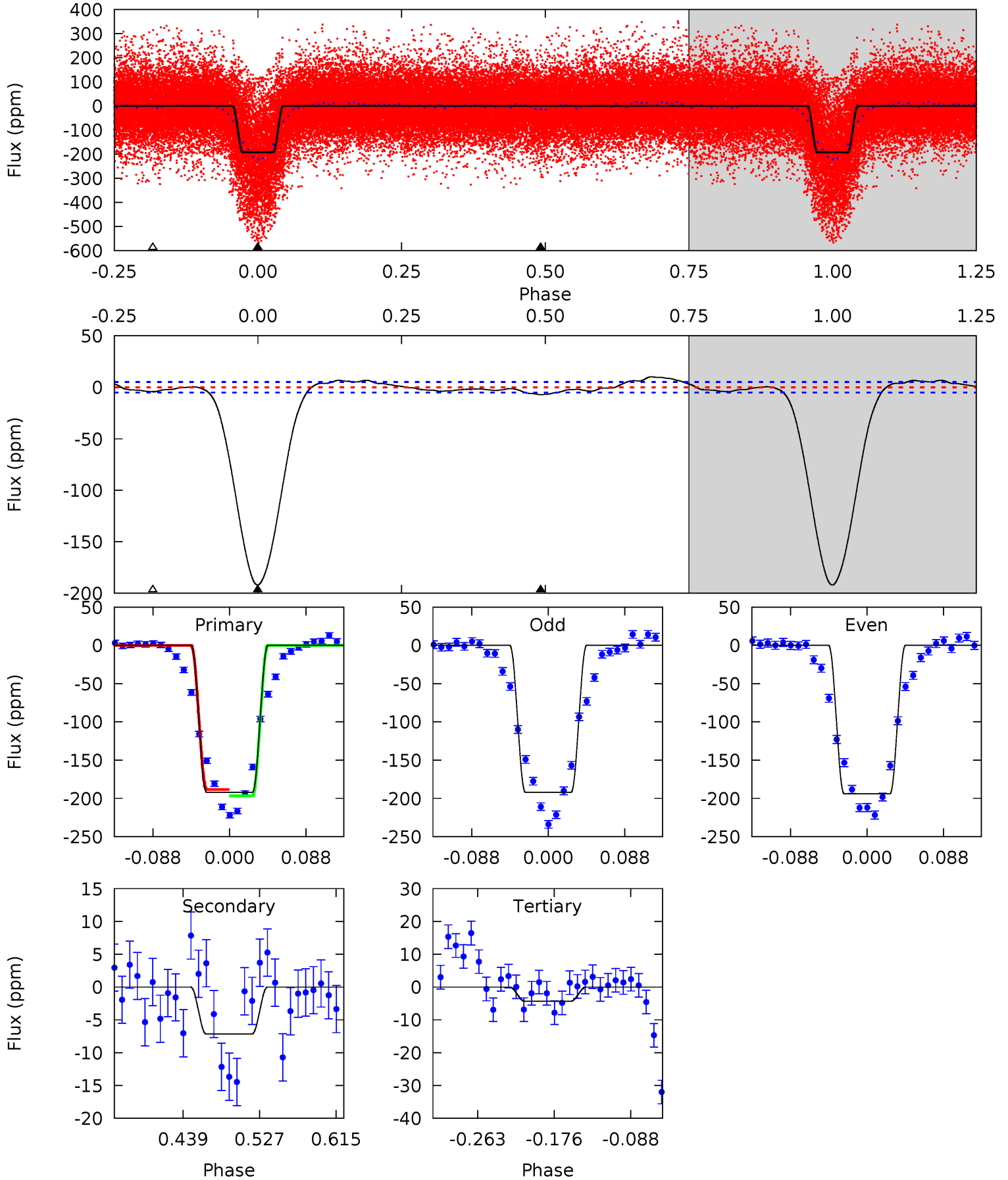
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.0	18.4	8.95	-0.37	4.60	1.73	8.35	18.1	27.4	9.43	18.7	7.02	1.25	0.51	1.93



Alt Model-Shift Uniqueness Test

008881883-01, P = 3.323690 Days, E = 128.394852 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
171.5	6.39	3.86	0	4.59	1.71	3.68	167.7	171.5	2.54	6.39	0.87	1.04	0.05	3.78



Stellar Parameters For KIC 008881883

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	10949^{+221}_{-516}	$3.650^{+0.416}_{-0.073}$	$0.070^{+0.150}_{-0.550}$	$4.465^{+0.509}_{-1.909}$	$3.249^{+0.088}_{-0.791}$	$0.051^{+0.193}_{-0.012}$
	+2%/-5%	+11%/-2%	+214%/-786%	+11%/-43%	+3%/-24%	+376%/-24%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008881883-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-30 ± 2	$3.24^{+0.50}_{-0.74}$	5375^{+392}_{-589}	8794^{+614}_{-552}	$6.463^{+3.722}_{-1.609}$
Alt.	-7 ± 1	$6.93^{+0.82}_{-1.58}$	5384^{+380}_{-583}	3096^{+719}_{-6246}	$0.346^{+0.209}_{-0.090}$

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 $A_{obs} \gg 1.0$

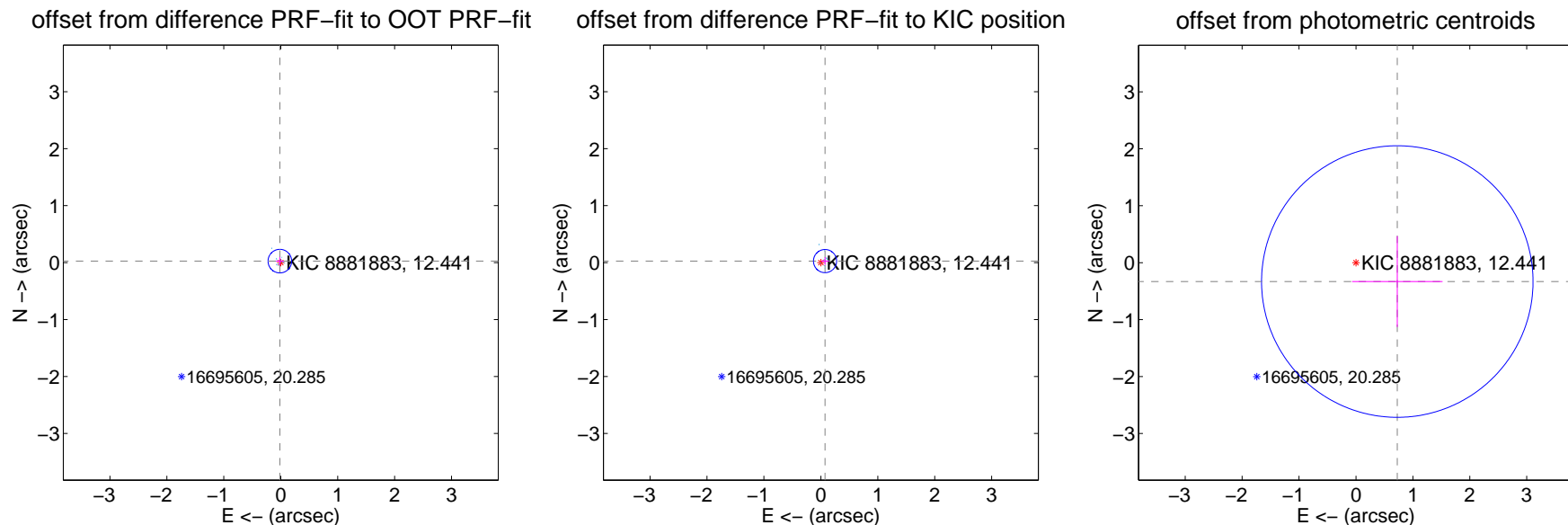
DV Centroid Data

Supplemental centroid analysis for 008881883-01. Kepler magnitude: 12.44. Transit SNR 11.57

There are 17 quarters with good PRF difference image offsets

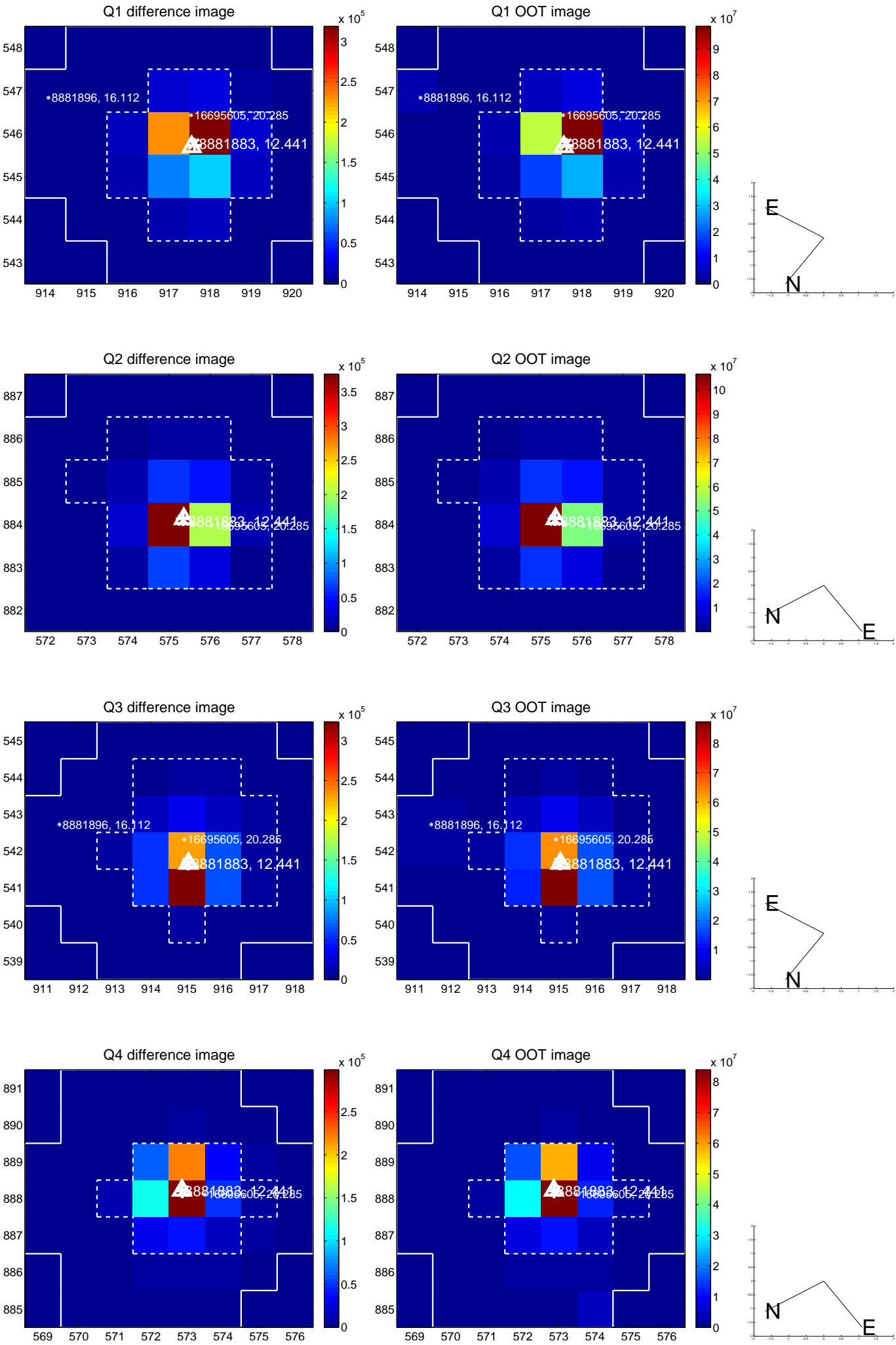
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.030 ± 0.069	0.44	0.016 ± 0.068	0.026 ± 0.069
PRF-fit source offset from KIC position	0.078 ± 0.068	1.15	-0.073 ± 0.068	0.027 ± 0.069
photometric centroid source offset	0.80 ± 0.80	1.00	-0.73 ± 0.79	-0.33 ± 0.80

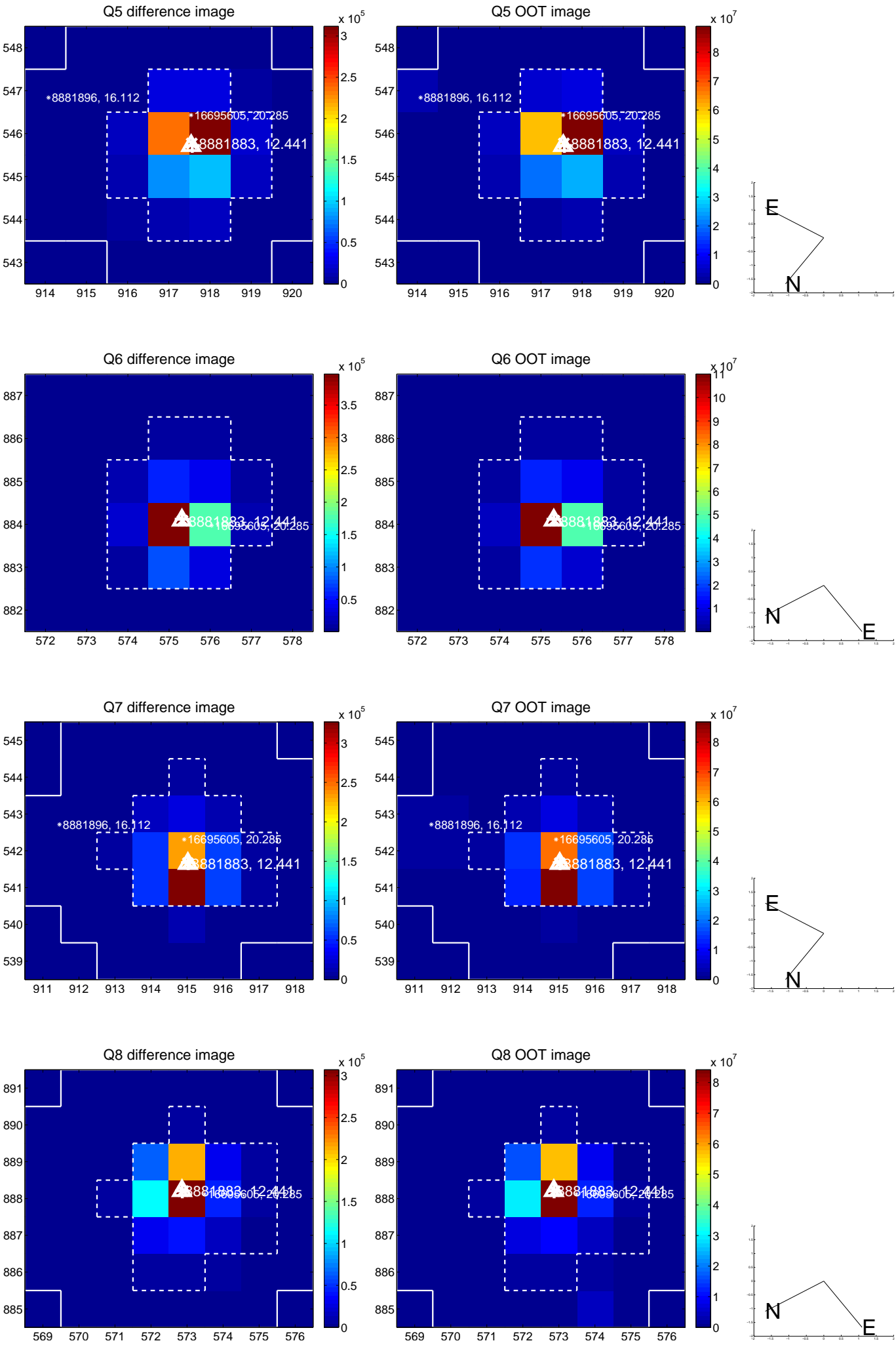


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

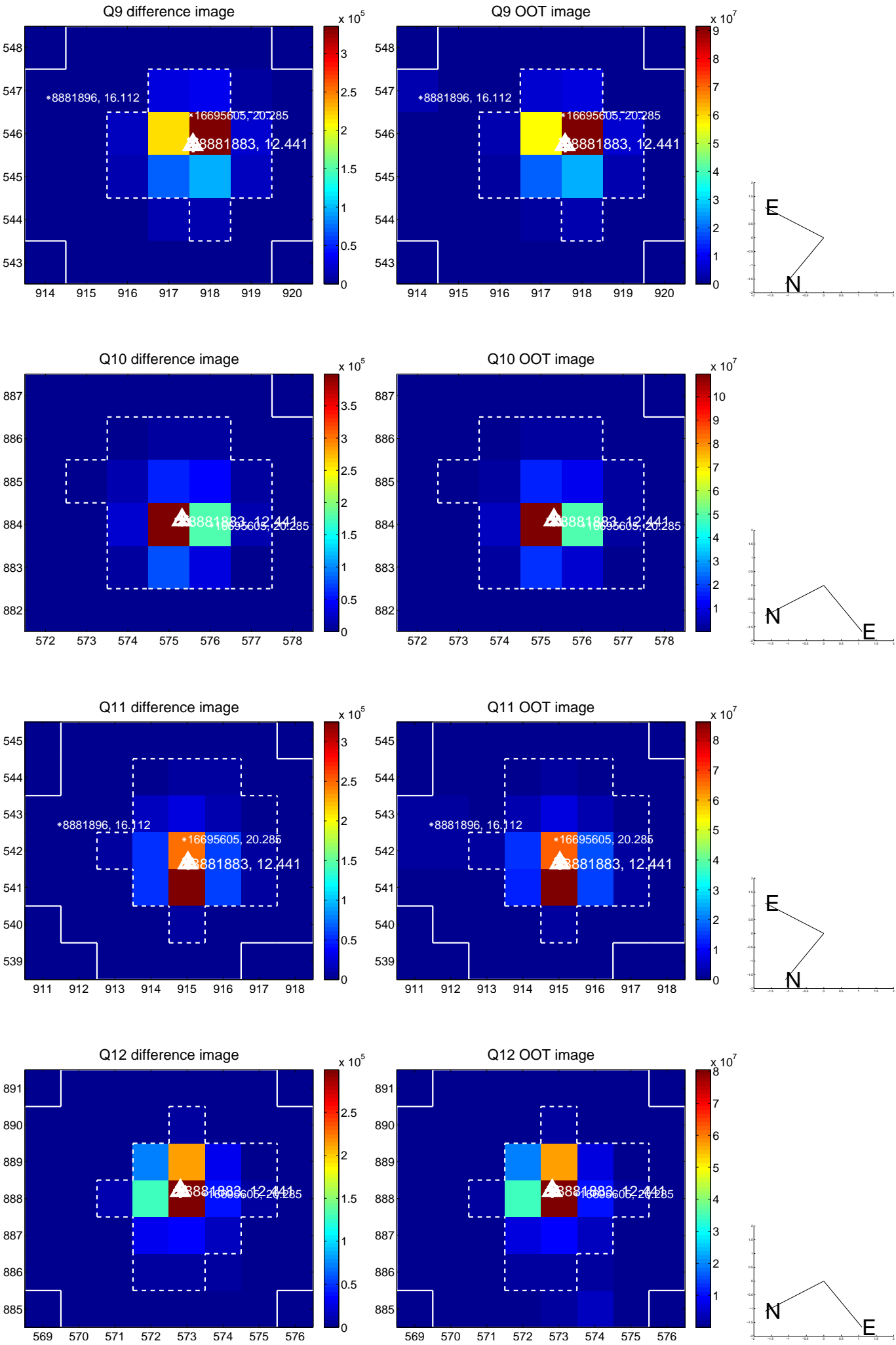
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



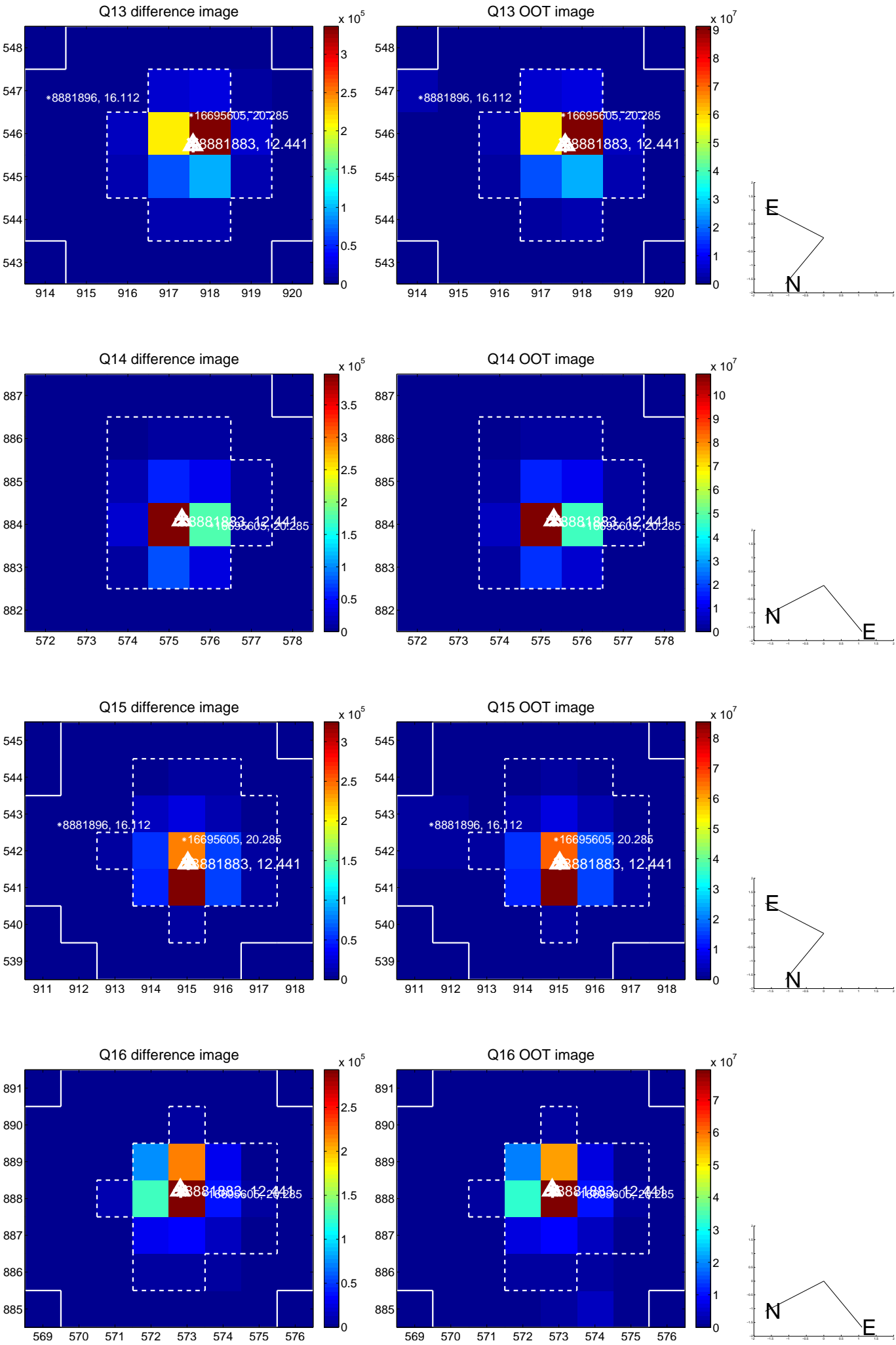
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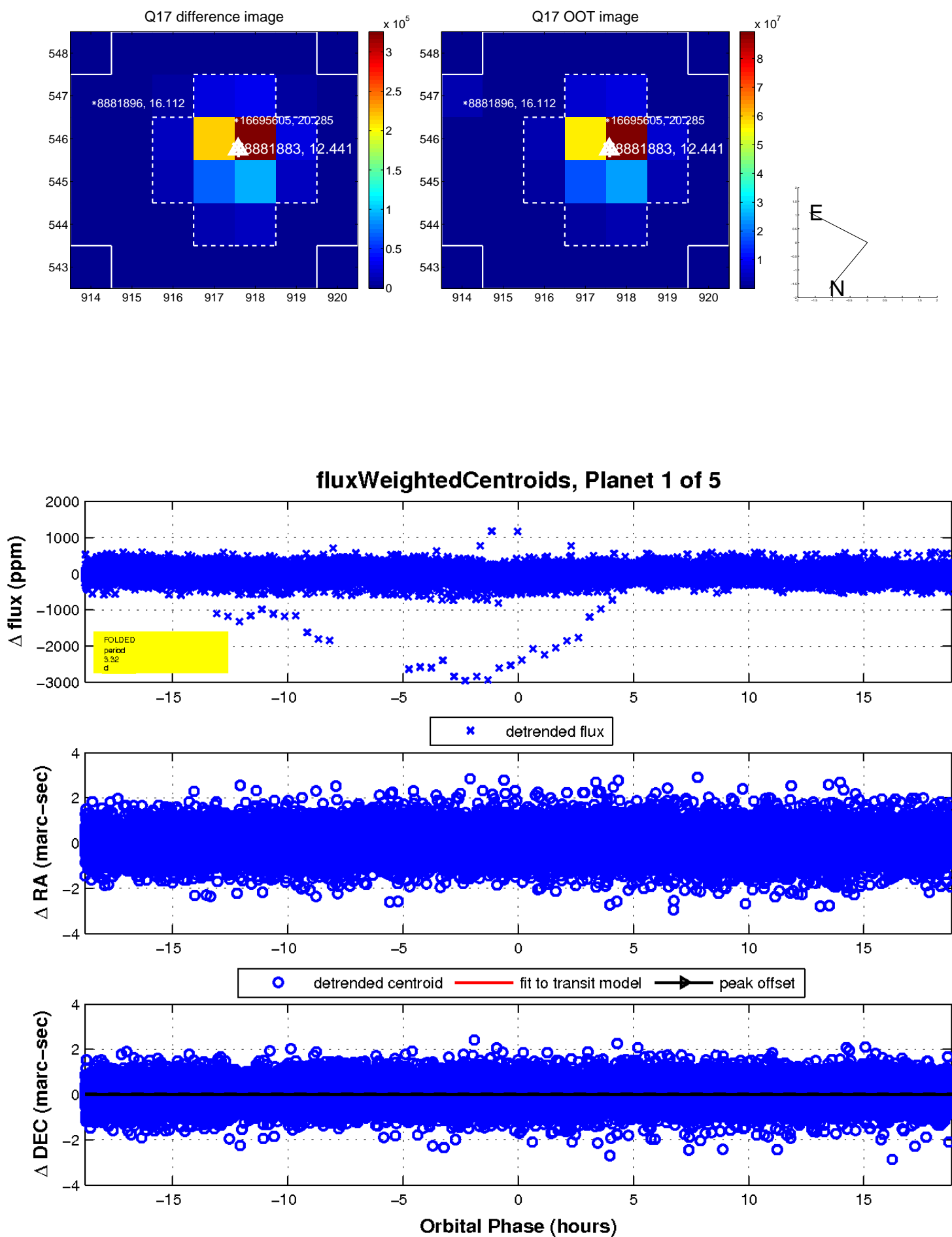
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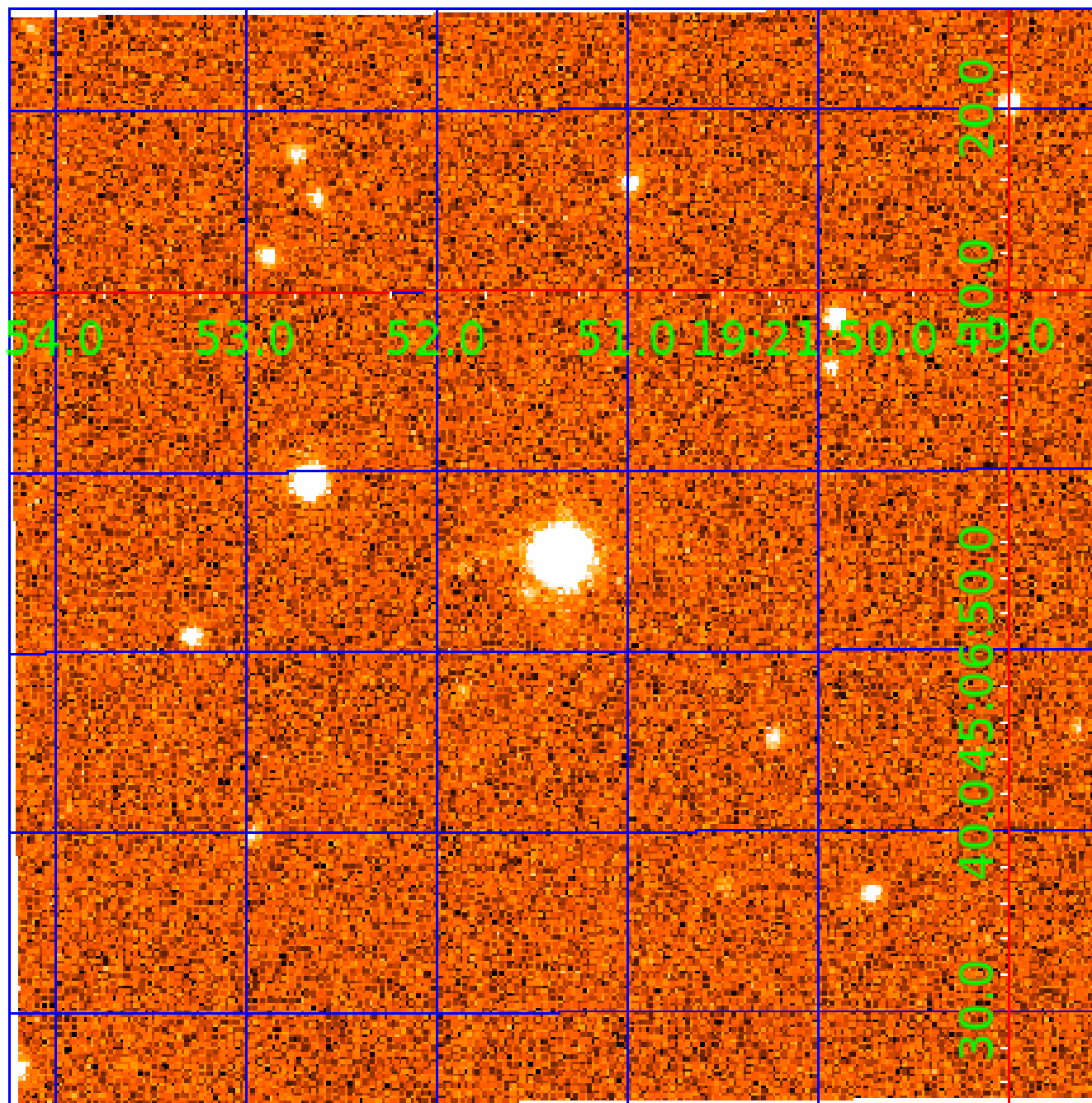


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UKIRT Image

Declination



KIC 008881883

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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008881883-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
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N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

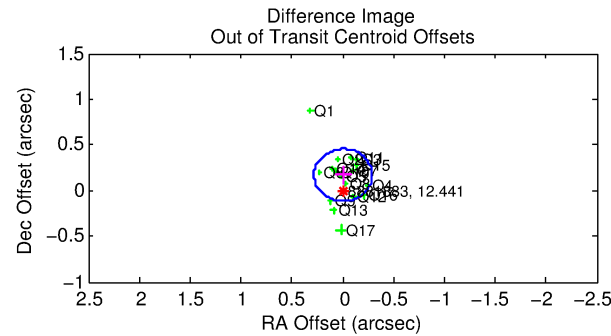
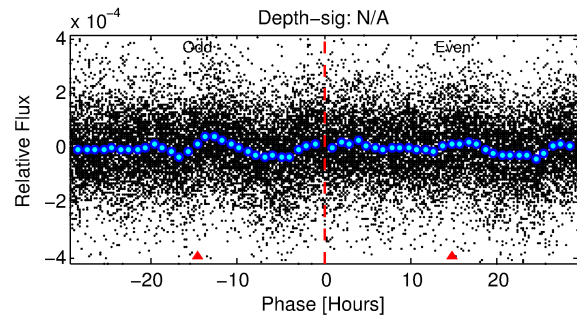
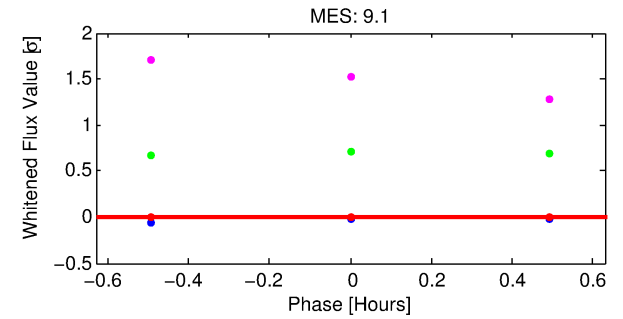
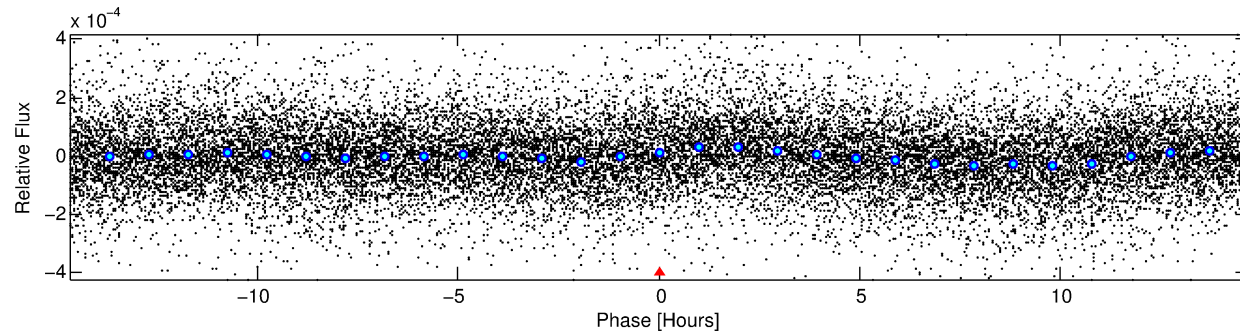
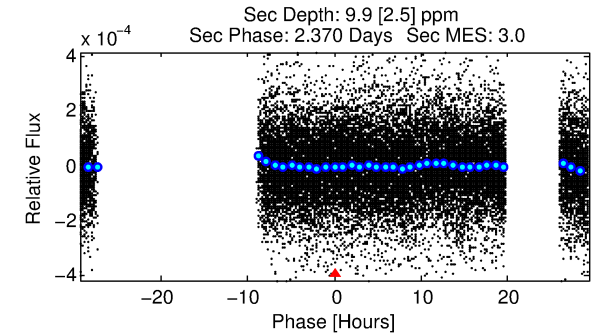
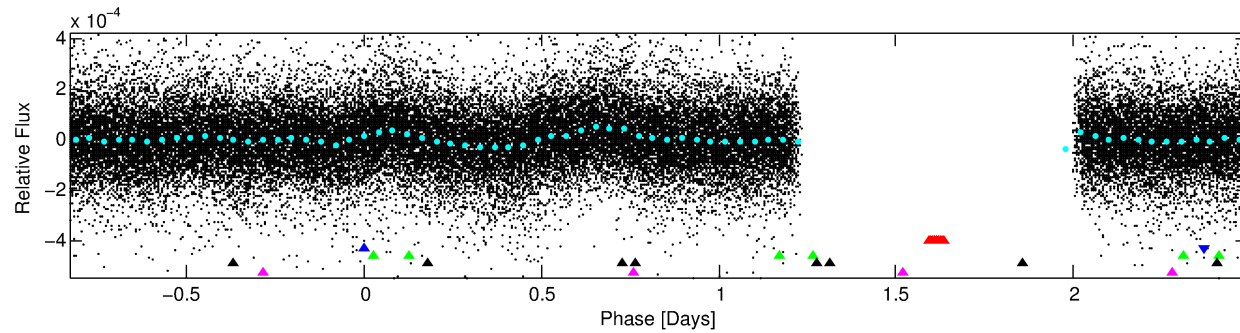
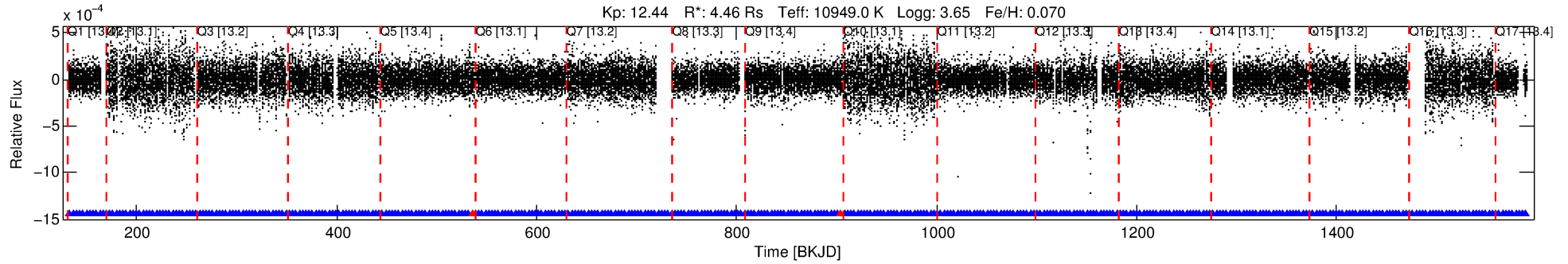
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008881883-02

No Significant Match Found

DV One-Page Summary

KIC: 8881883 Candidate: 2 of 5 Period: 3.324 d



TPS TCE Results:

Period = 3.32376 d
Epoch = 133.7348 BKJD

DV fit results are unavailable

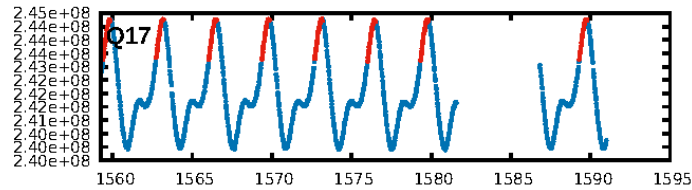
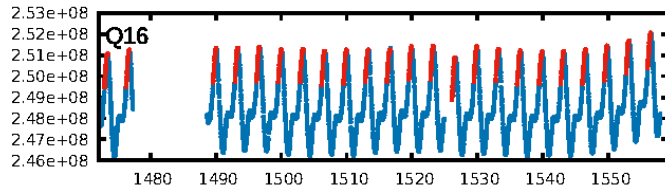
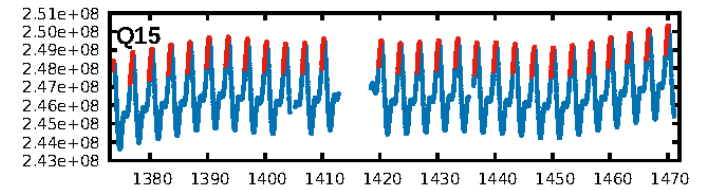
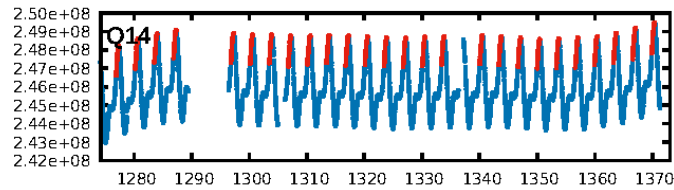
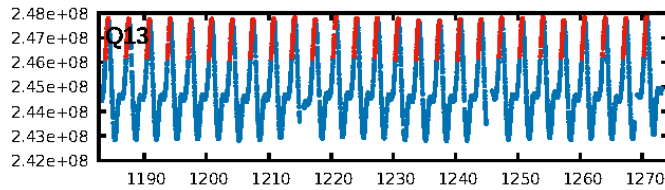
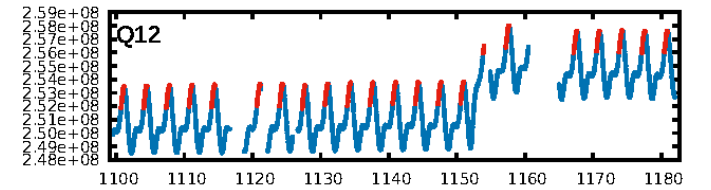
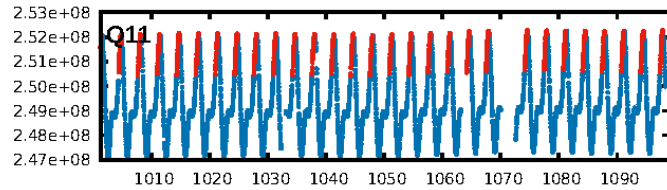
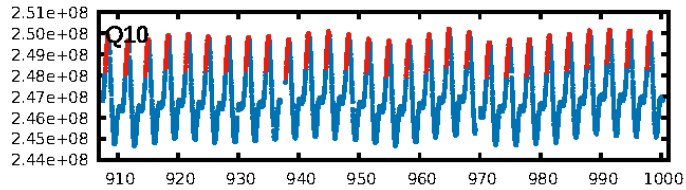
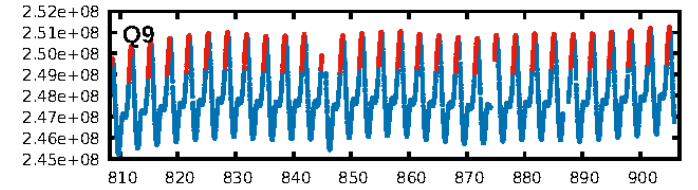
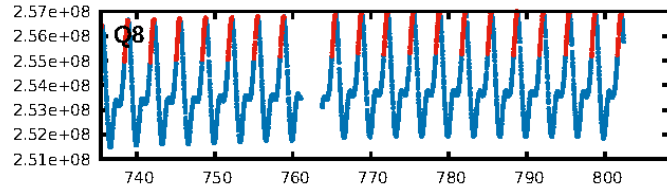
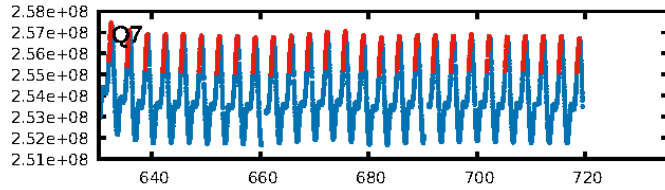
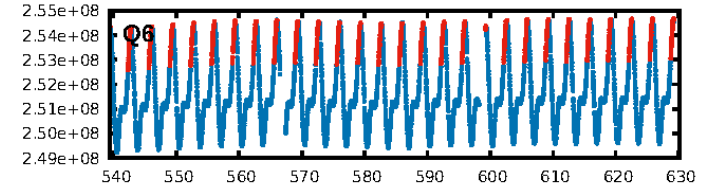
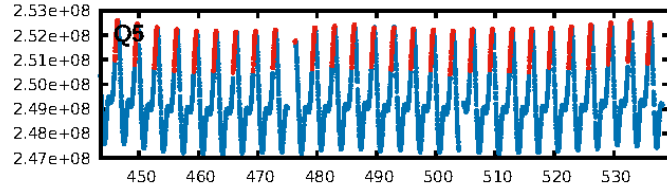
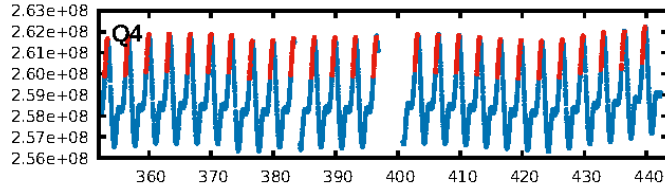
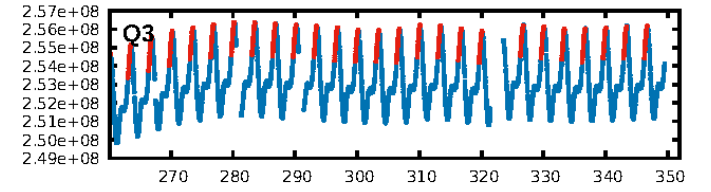
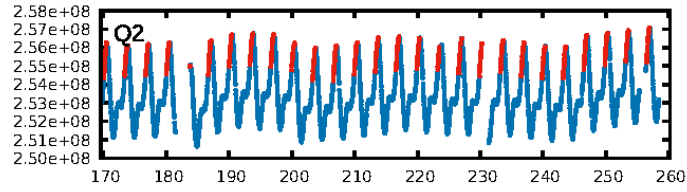
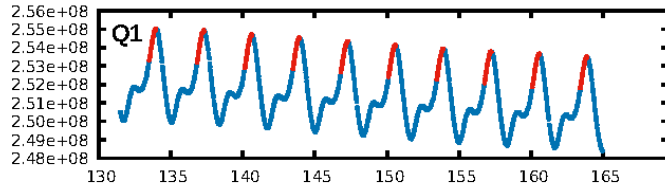
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [666.96σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.69e-15
RollingBand-fgt: 0.99 [383/385]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.170 arcsec [1.79σ]
KicOffset-rm: 0.184 arcsec [2.18σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

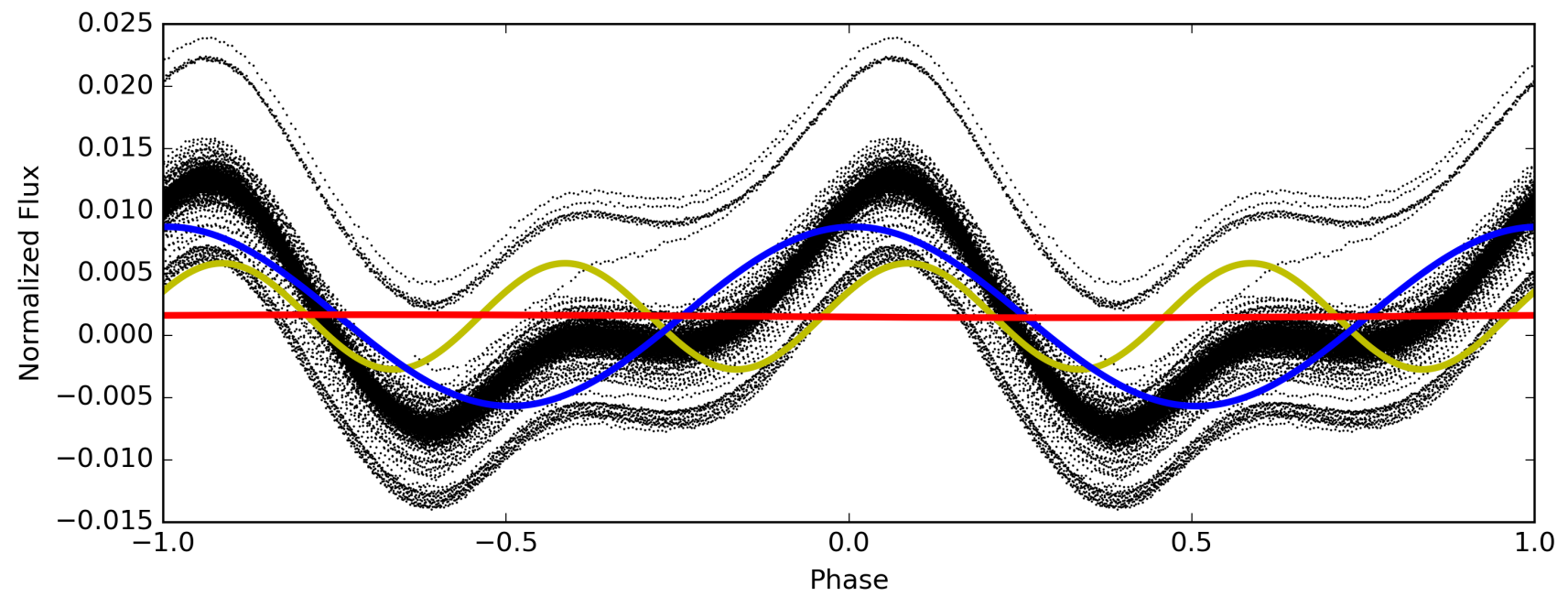
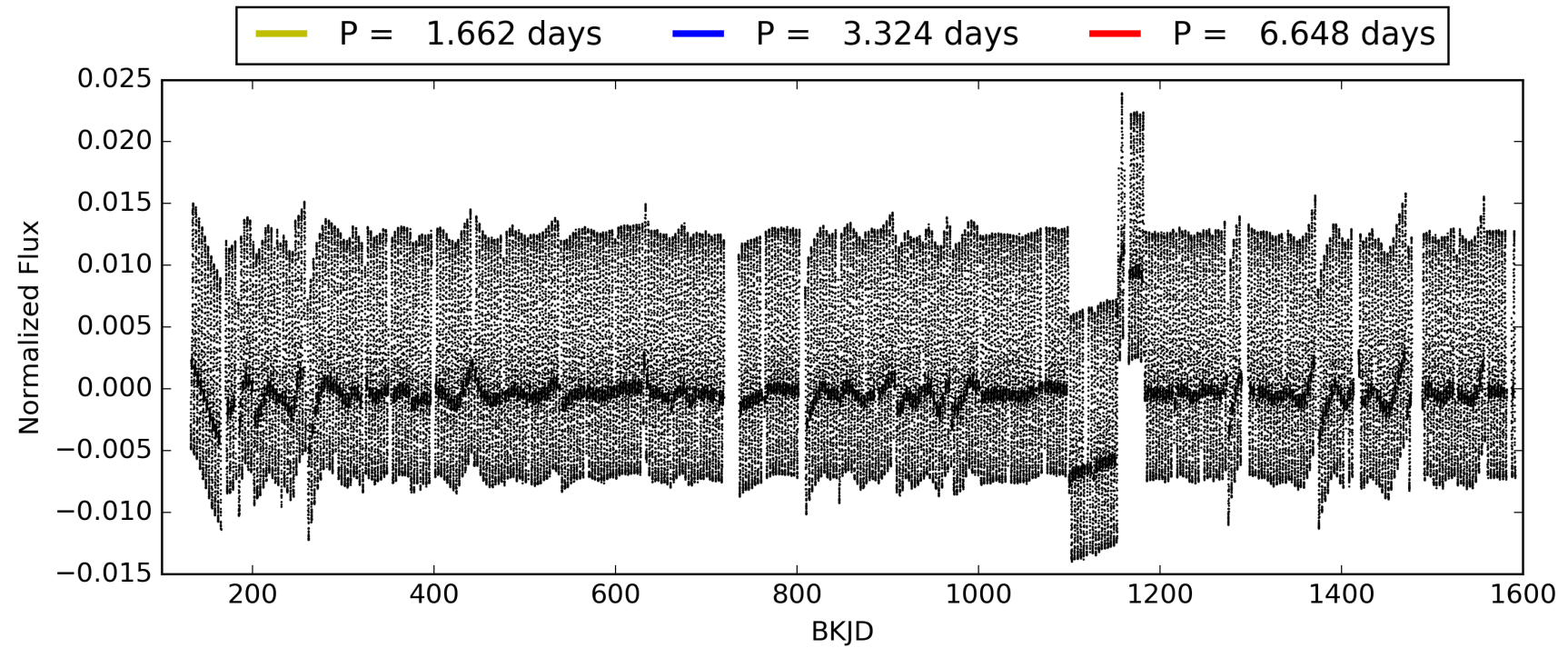
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:09:17 Z

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

TCE 008881883-02, PDC Light Curves

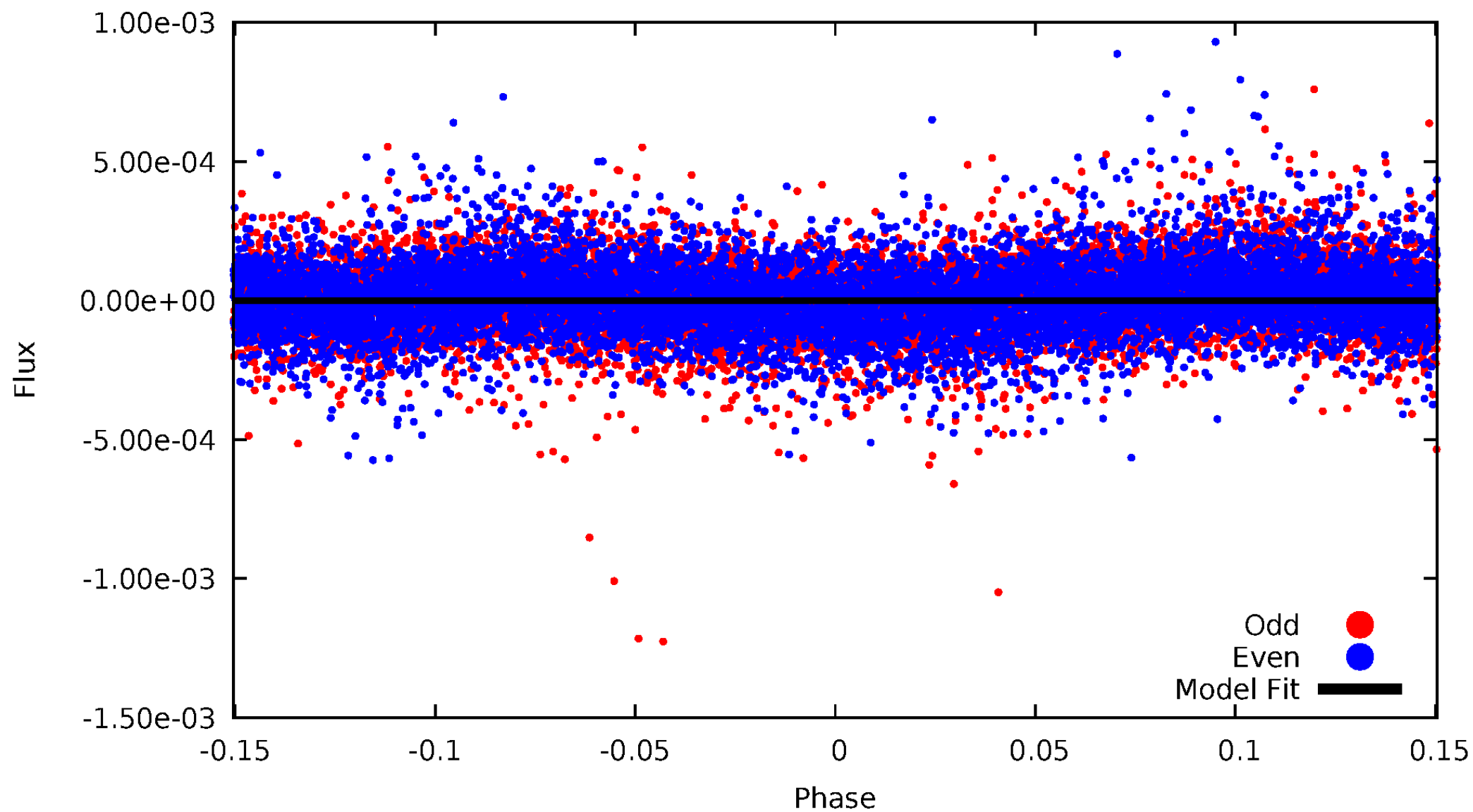


TCE 008881883-02



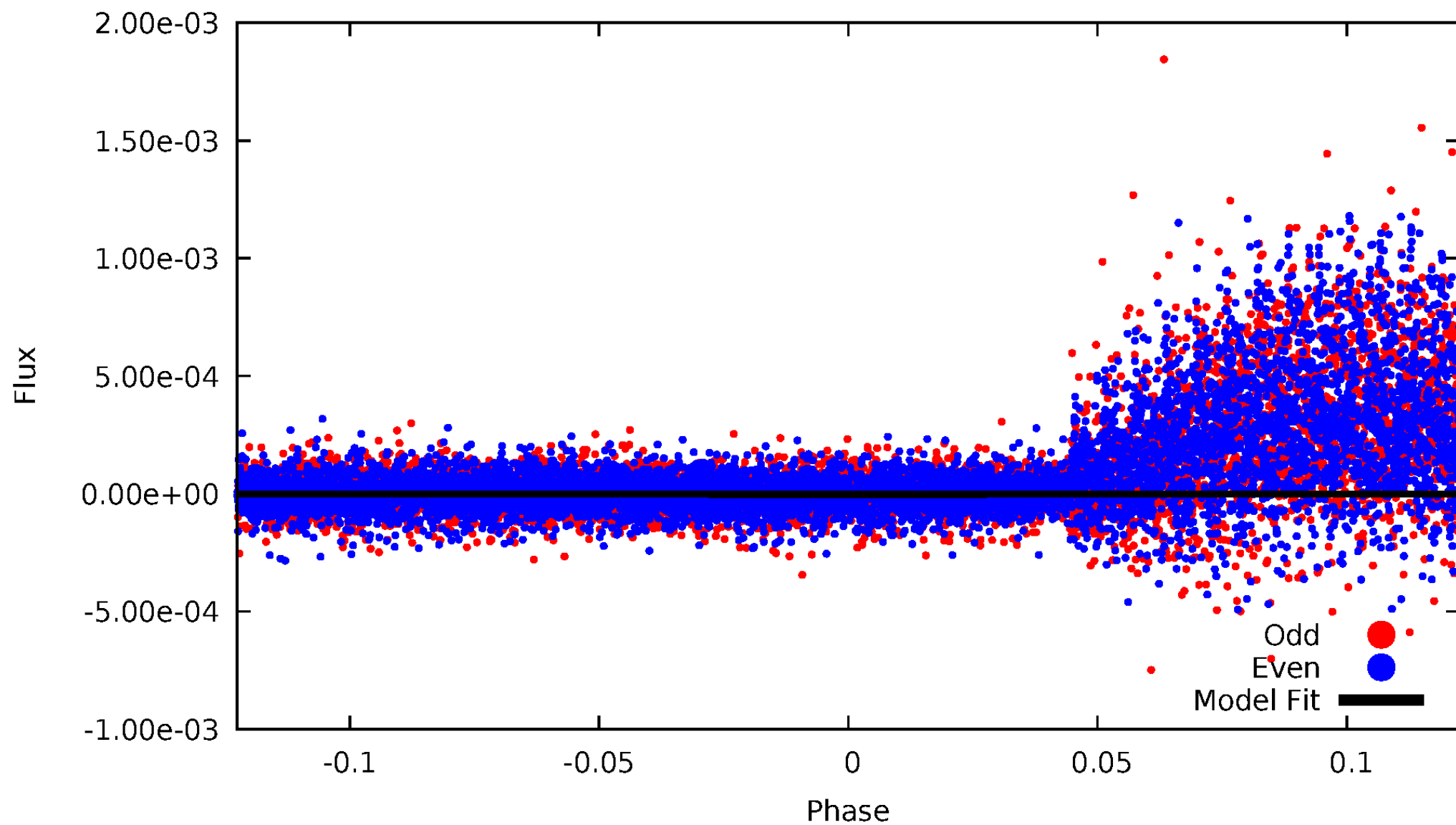
DV Odd/Even

TCE 008881883-02



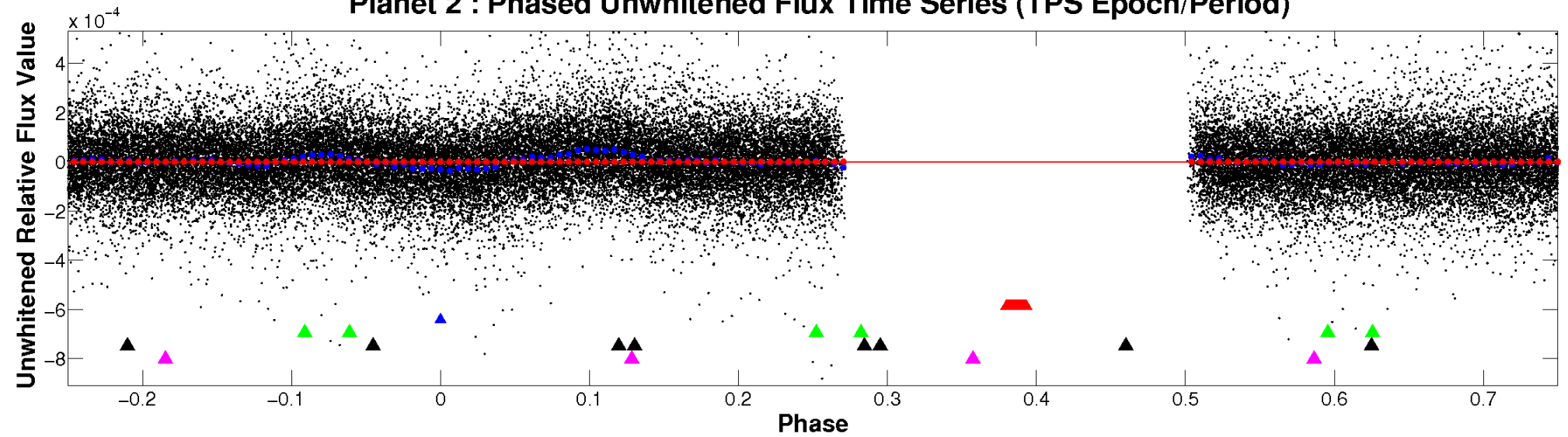
ALT Odd/Even

TCE 008881883-02

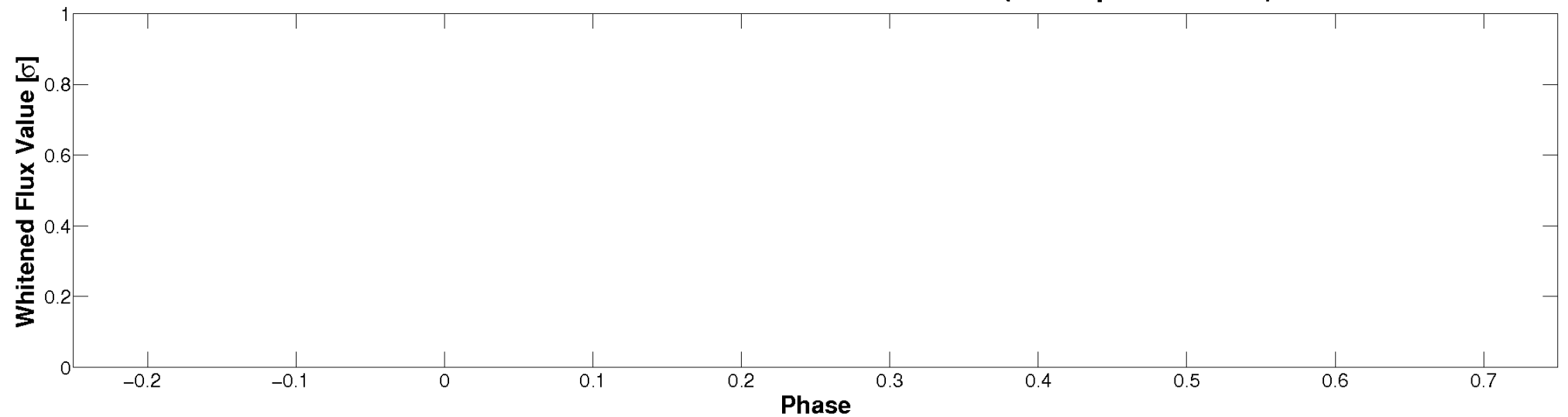


Non-Whitened Vs. Whitened Light Curve

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

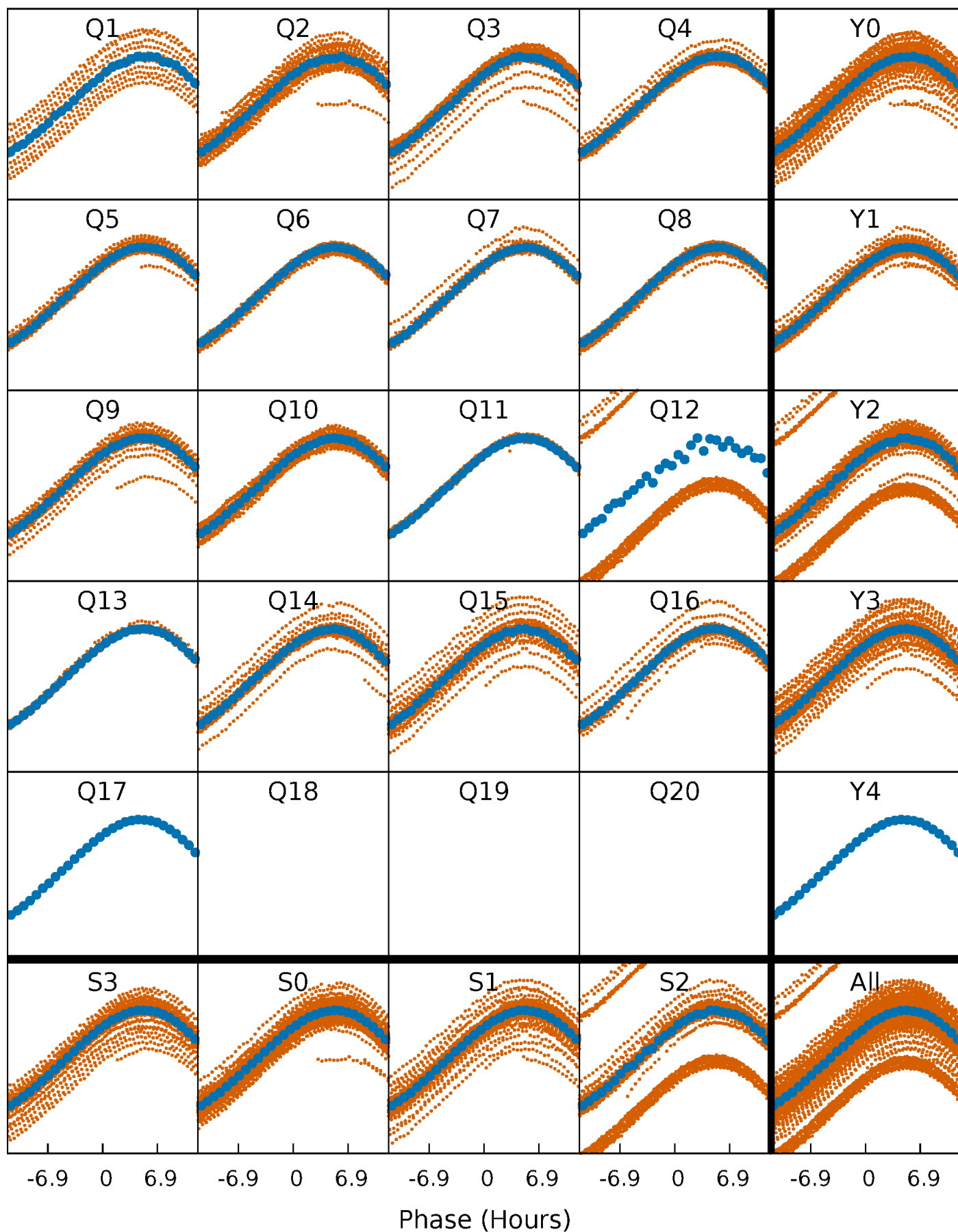


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



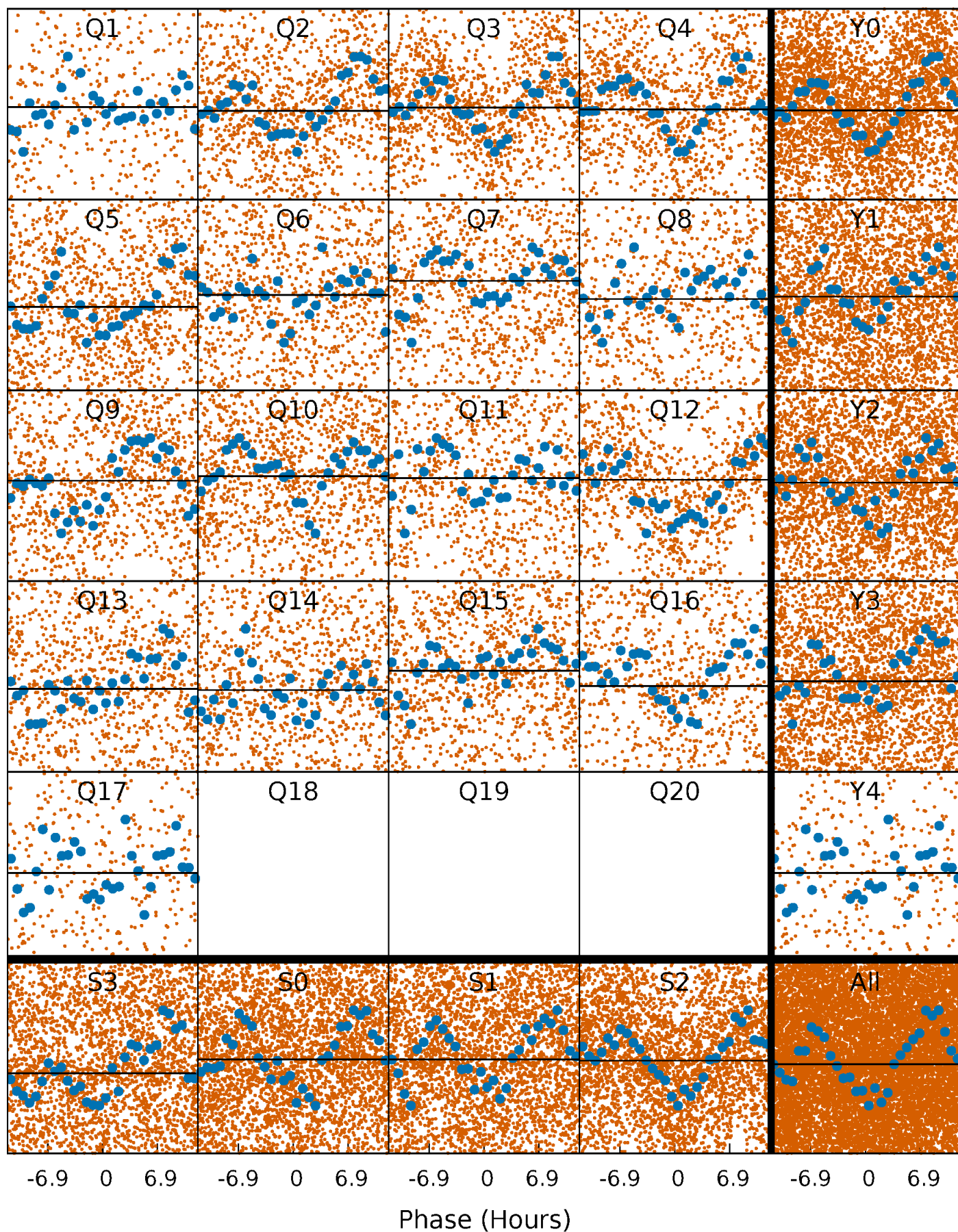
PDC Quarter-Phased Transit Curves

TCE 008881883-02 P= 3.323760 Days $T_0=133.734846$ (BKJD)



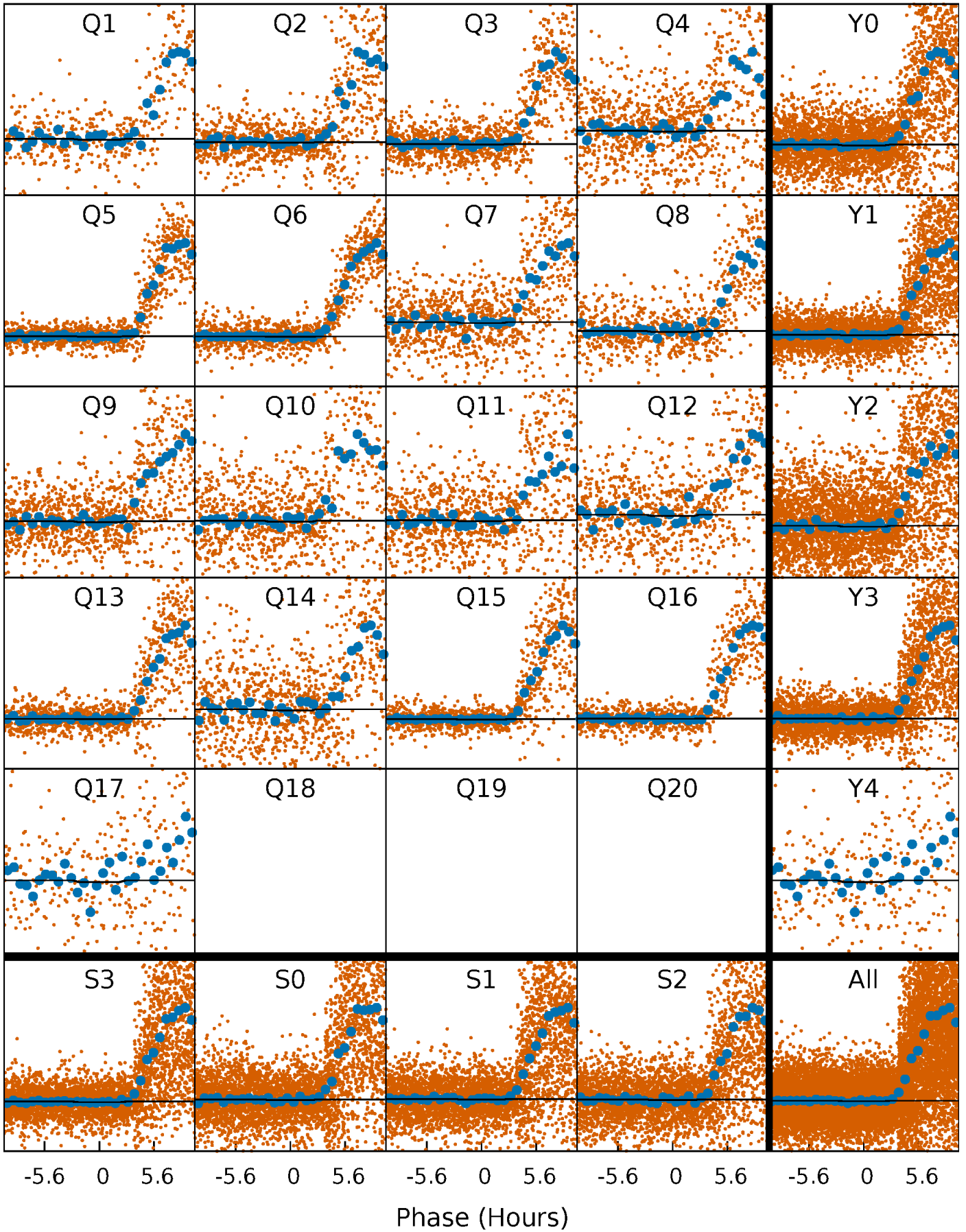
DV Quarter-Phased Transit Curves

TCE 008881883-02 P= 3.323760 Days $T_0=133.734846$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

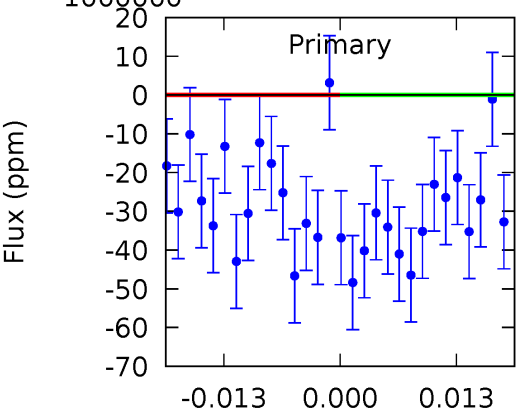
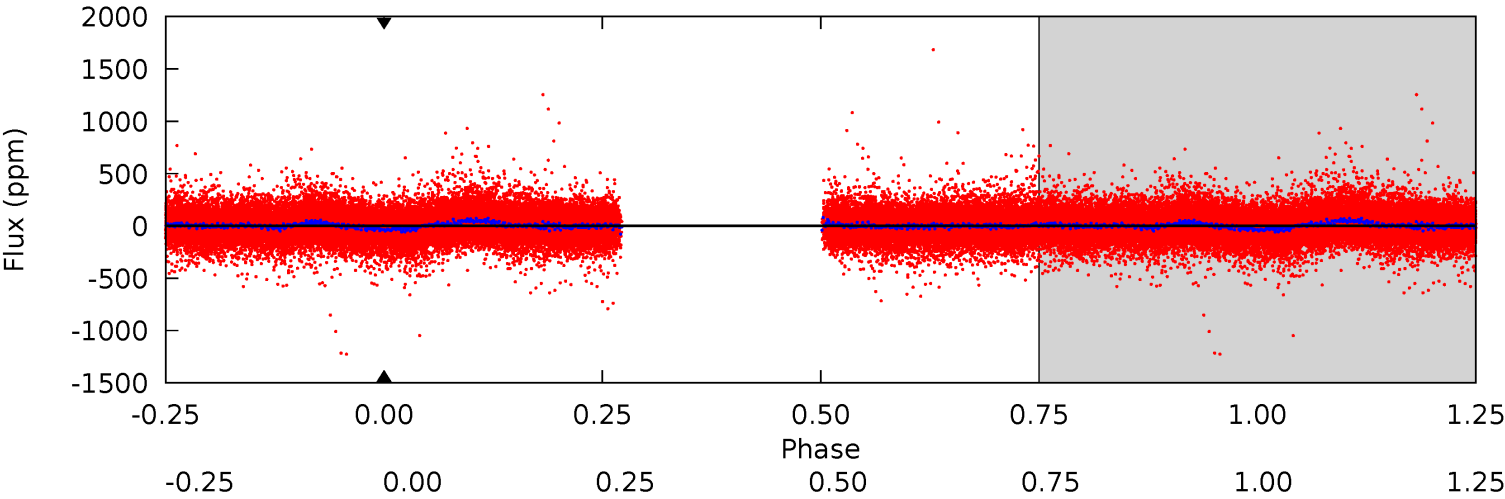
TCE 008881883-02 P= 3.323760 Days $T_0=133.404536$ (BKJD)



DV Model-Shift Uniqueness Test

008881883-02, P = 3.323760 Days, E = 130.411086 Days

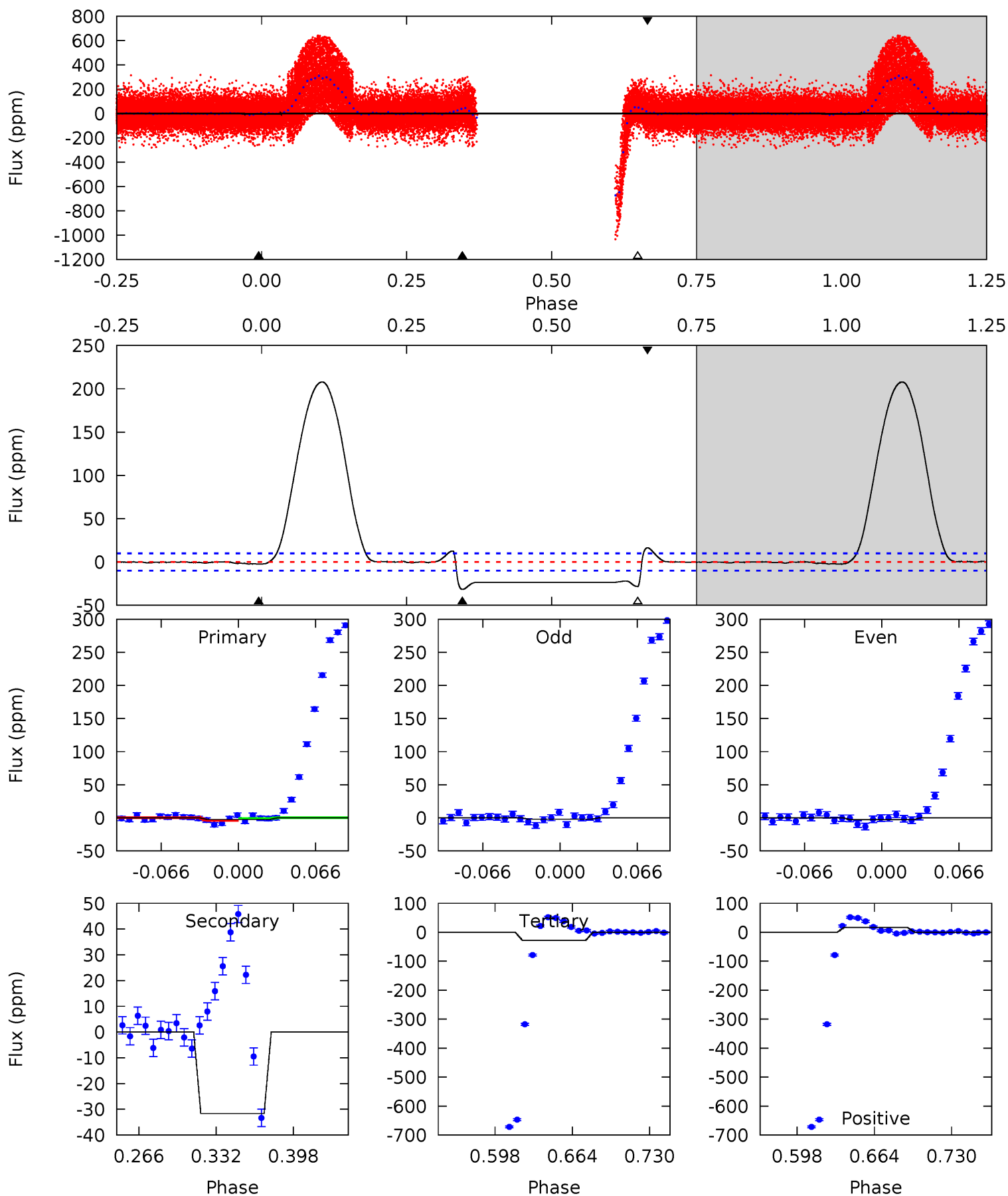
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008881883-02, P = 3.323760 Days, E = 130.080776 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.14	14.9	13.3	7.70	4.65	1.84	28.3	-12.1	-6.56	1.59	7.15	0.17	1.53	0.87	0.60



Stellar Parameters For KIC 008881883

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	10949^{+221}_{-516}	$3.650^{+0.416}_{-0.073}$	$0.070^{+0.150}_{-0.550}$	$4.465^{+0.509}_{-1.909}$	$3.249^{+0.088}_{-0.791}$	$0.051^{+0.193}_{-0.012}$
	+2%/-5%	+11%/-2%	+214%/-786%	+11%/-43%	+3%/-24%	+376%/-24%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008881883-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$30.25^{+31.17}_{-21.19}$	5369^{+372}_{-603}	$3427^{+91271}_{-121451}$	$0.366^{+406.380}_{-523.163}$
Alt.	-32 ± 2	$27.21^{+36.97}_{-20.11}$	5357^{+413}_{-592}	-3791^{+9010}_{-462}	$0.090^{+1.276}_{-0.073}$

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 $A_{obs} \gg 1.0$

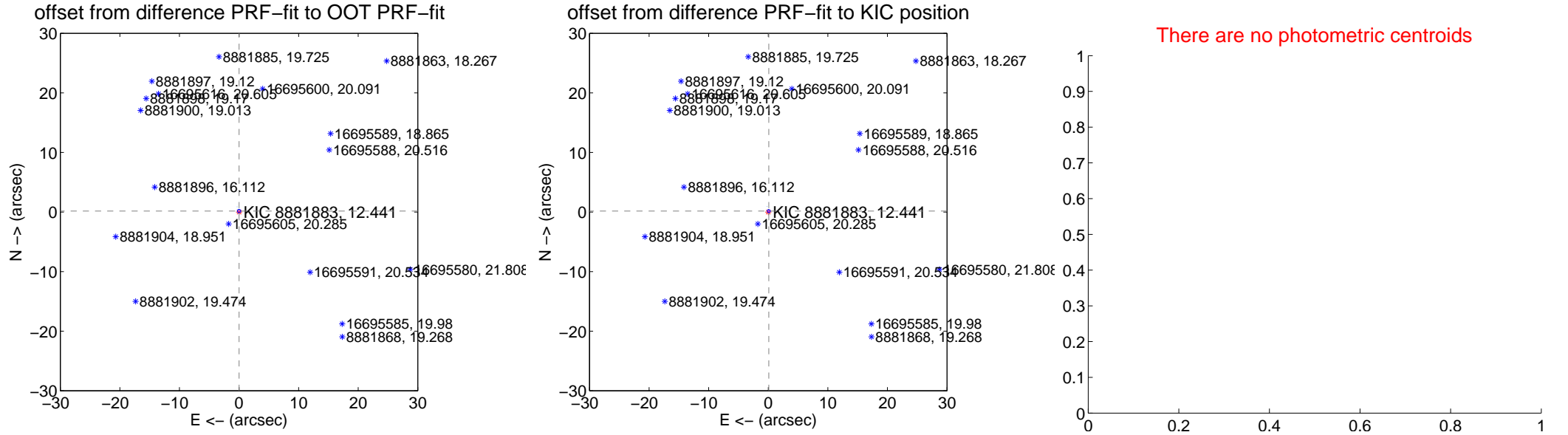
DV Centroid Data

Supplemental centroid analysis for 008881883-02. Kepler magnitude: 12.44. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

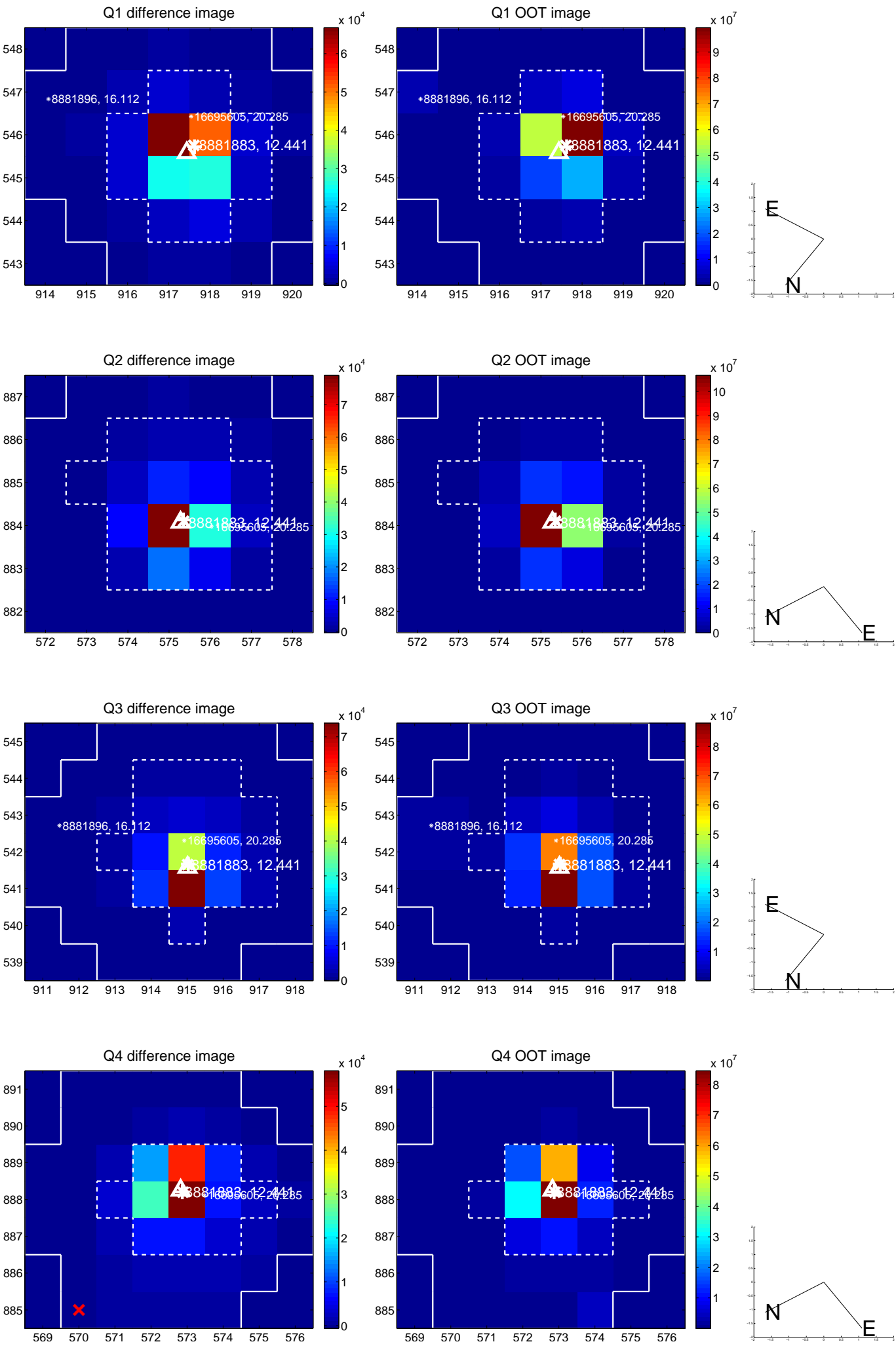
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.170 ± 0.095	1.79	-0.004 ± 0.074	0.170 ± 0.095
PRF-fit source offset from KIC position	0.184 ± 0.085	2.18	-0.086 ± 0.072	0.163 ± 0.093
photometric centroid source offset	—	—	—	—

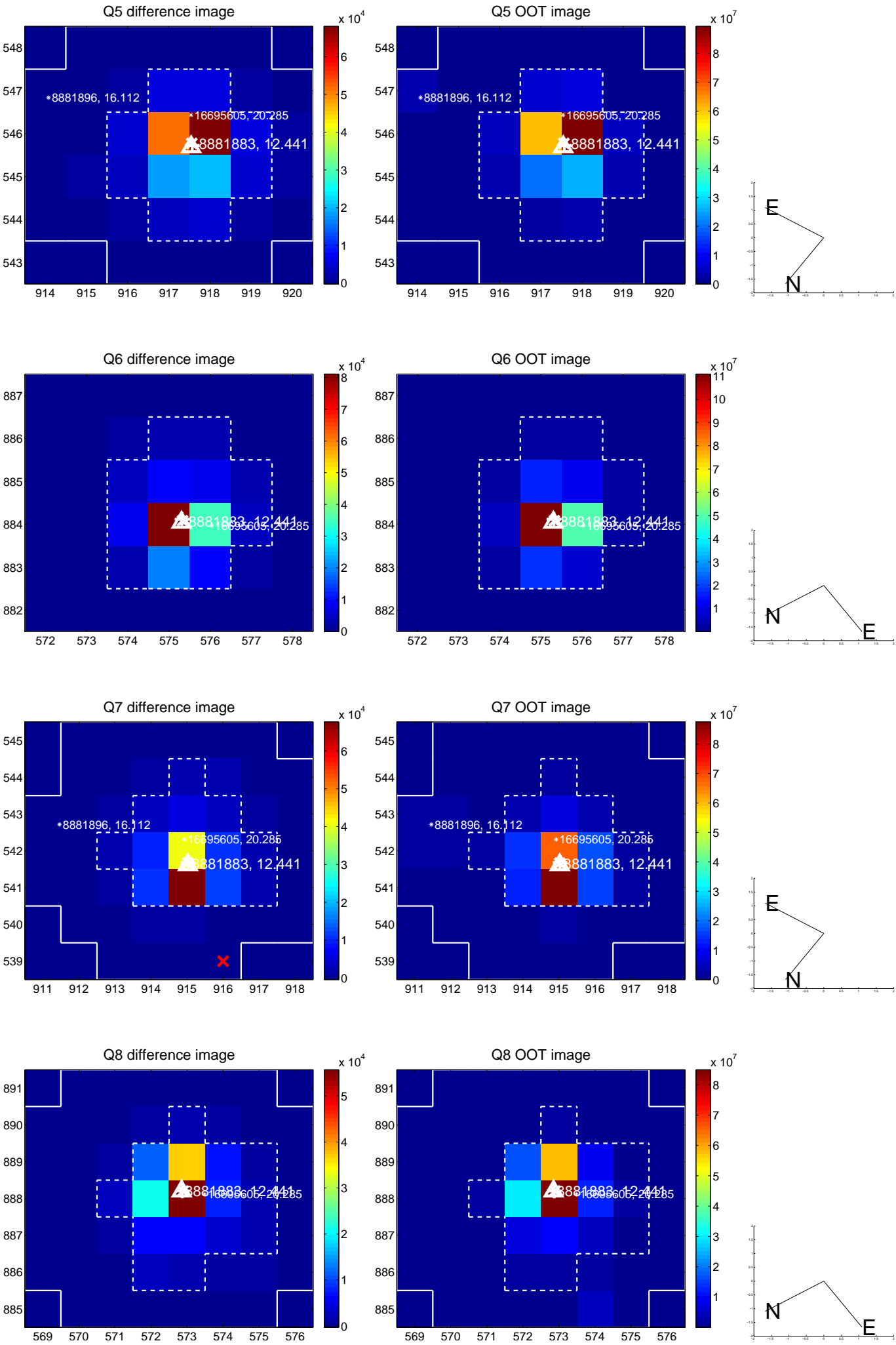


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

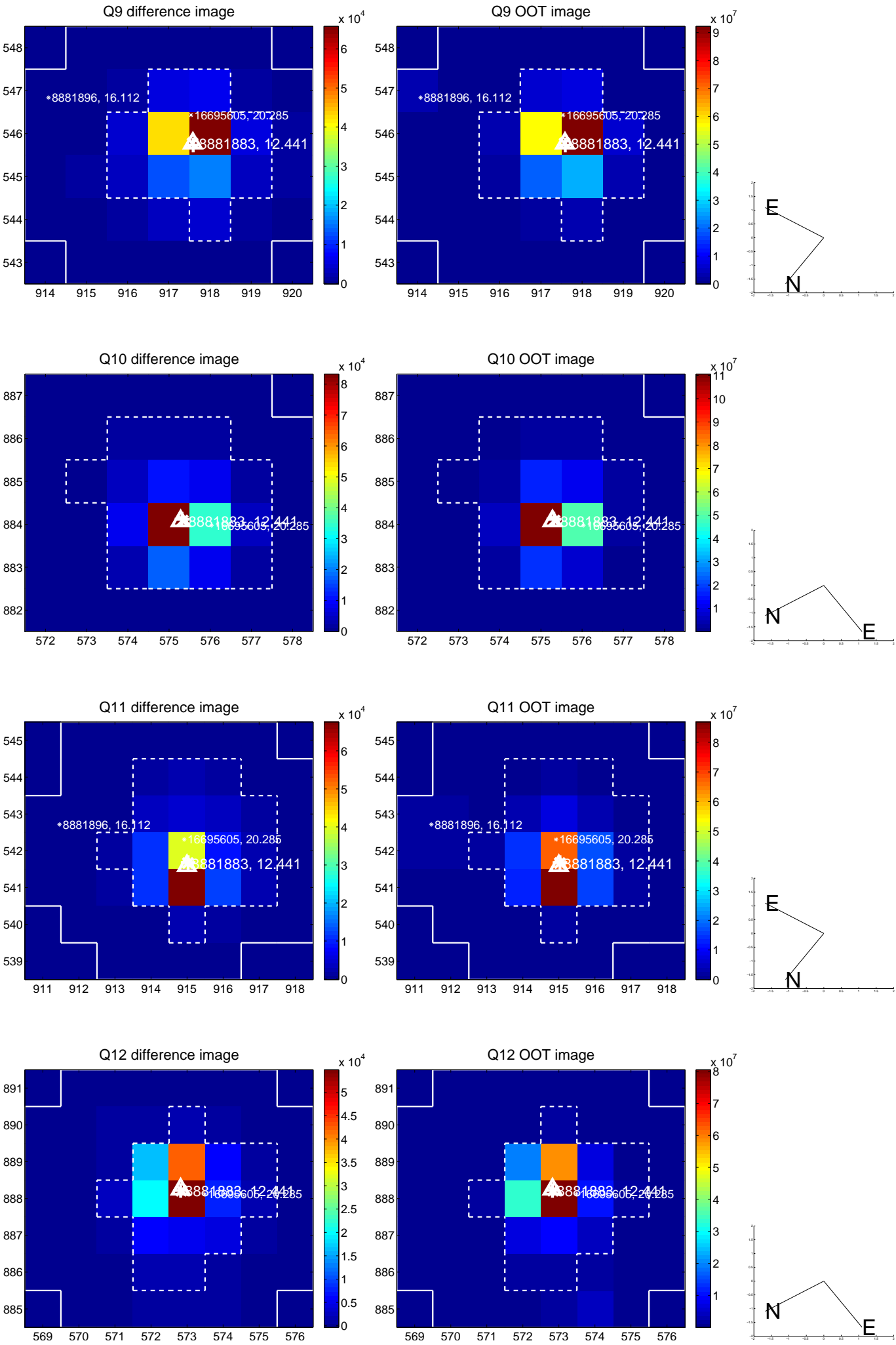
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



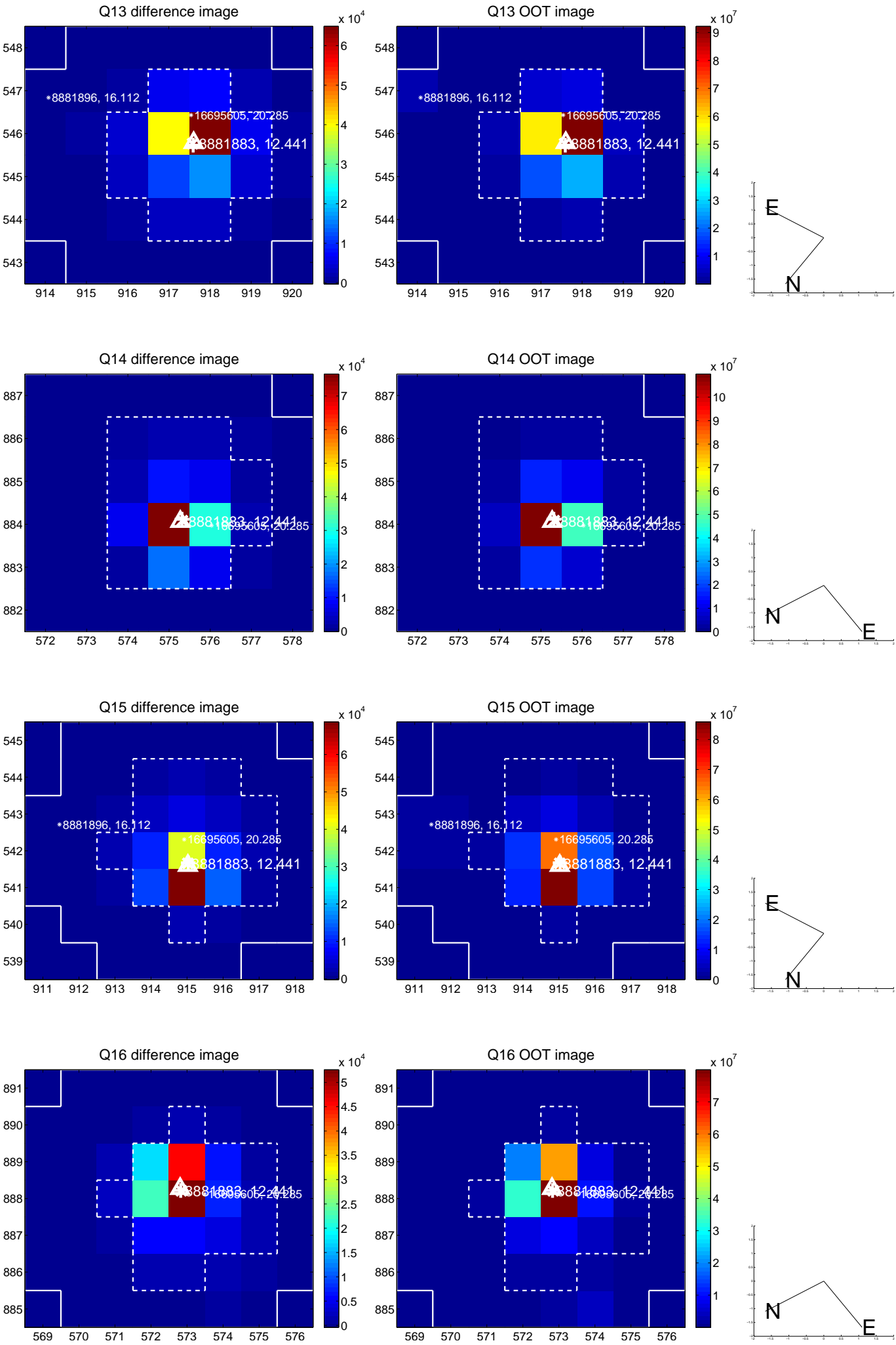
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



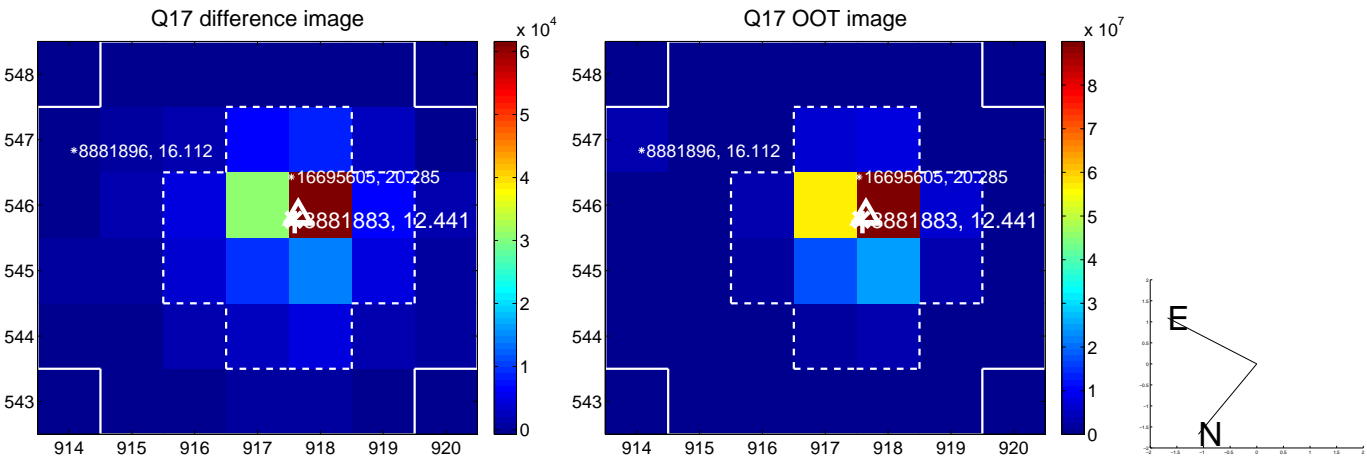
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



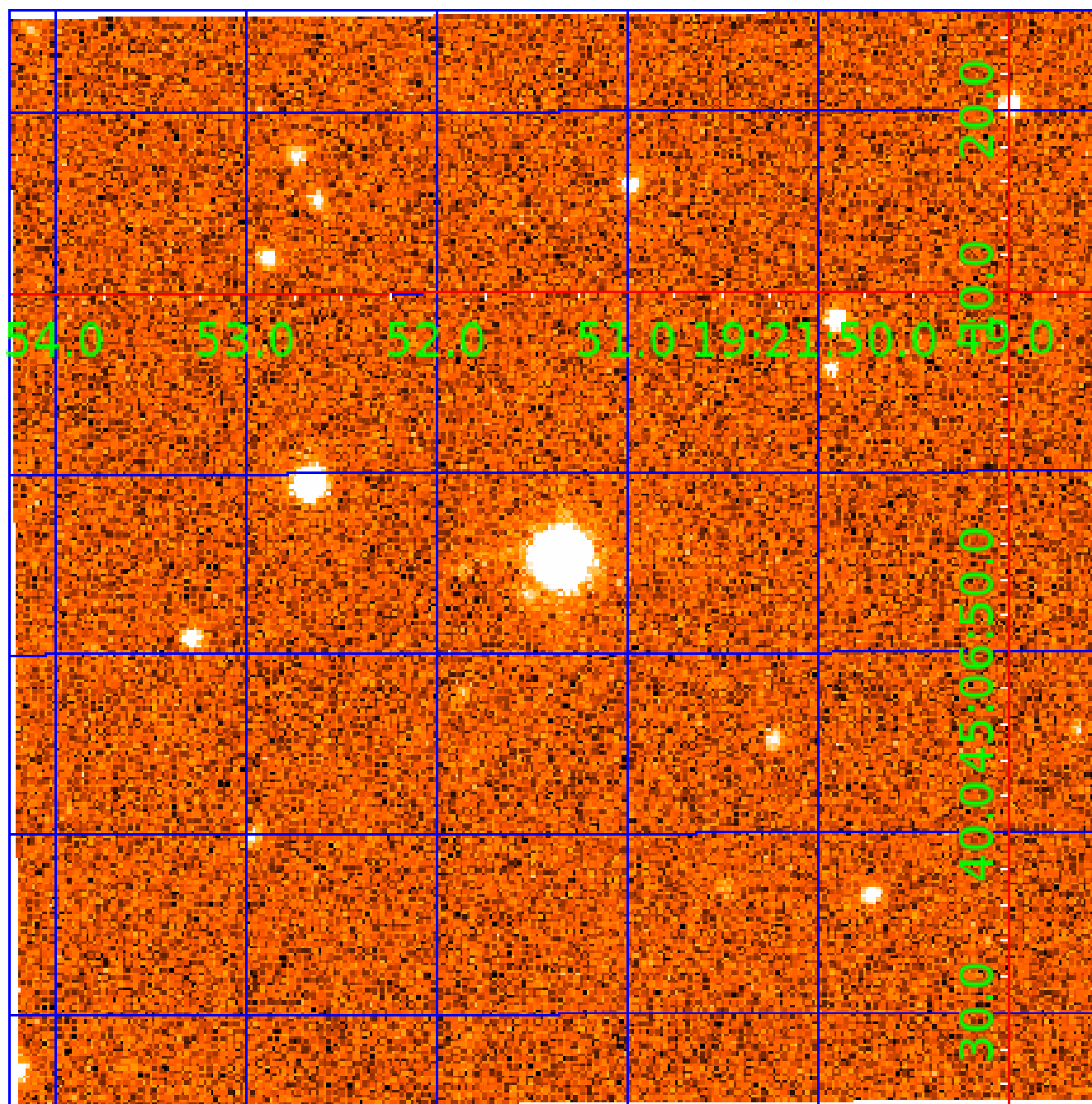
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 008881883

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})
008881883-01	OBS	No	3.323657	131.718506	35.6	6.269	13.1	11.6	4.46	10949	3.49	61581.68
008881883-02	OBS	No	3.323760	133.734846	75.6	6.000	9.1	-1.0	4.46	10949	4.00	61579.13
008881883-03	OBS	No	228.198252	238.850933	412.2	2.685	8.4	8.3	4.46	10949	10.48	219.04
008881883-04	OBS	No	185.582504	247.688557	204.1	2.648	7.8	4.0	4.46	10949	7.35	288.55
008881883-05	OBS	No	401.413898	252.776667	114.1	0.860	7.7	1.9	4.46	10949	5.50	103.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008881883-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008881883-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
008881883-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008881883-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008881883-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—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.

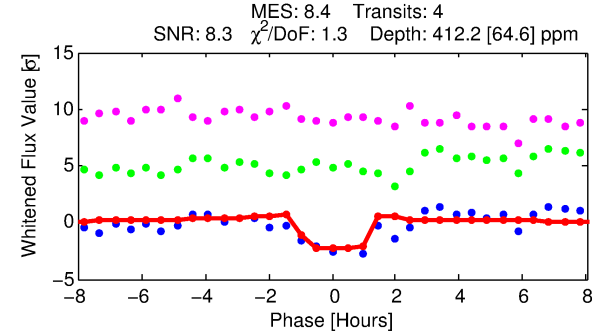
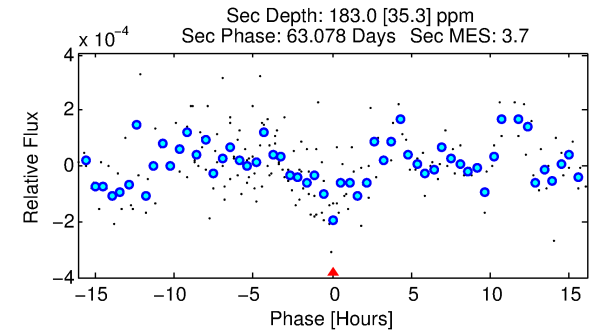
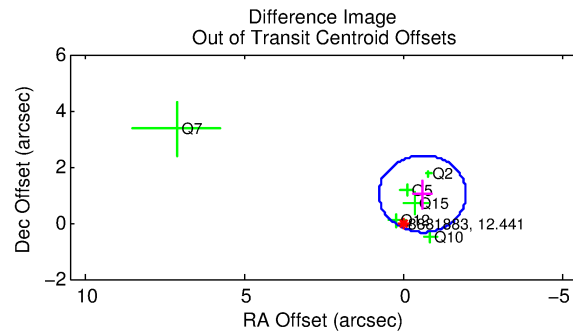
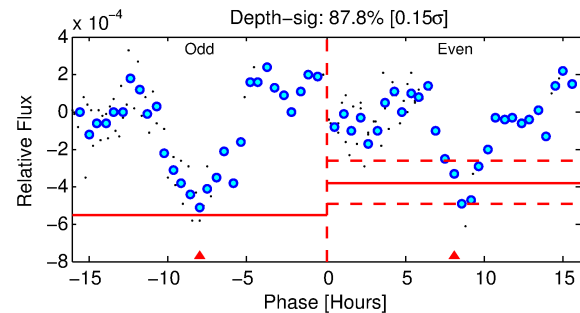
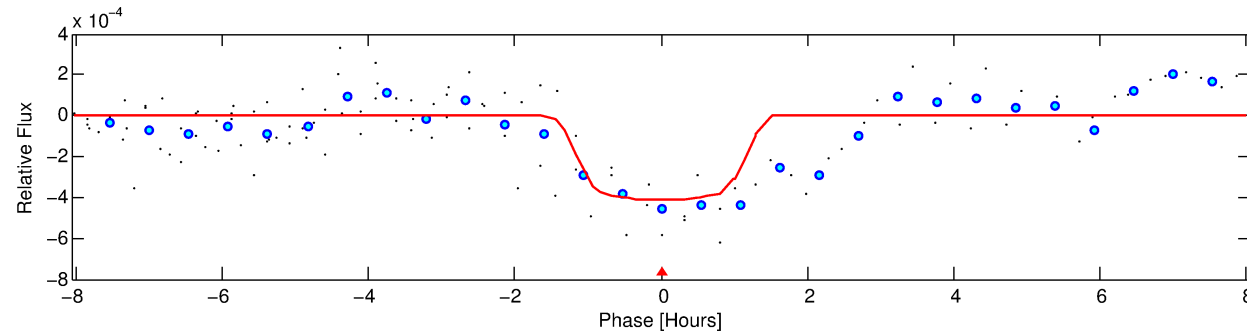
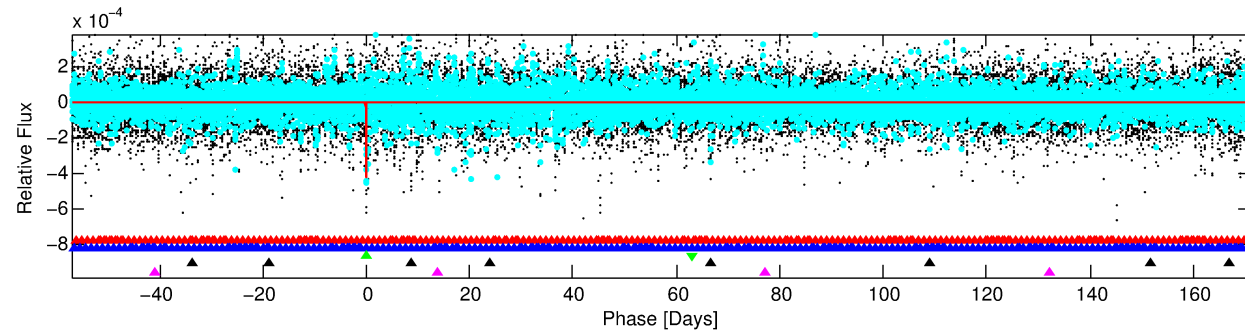
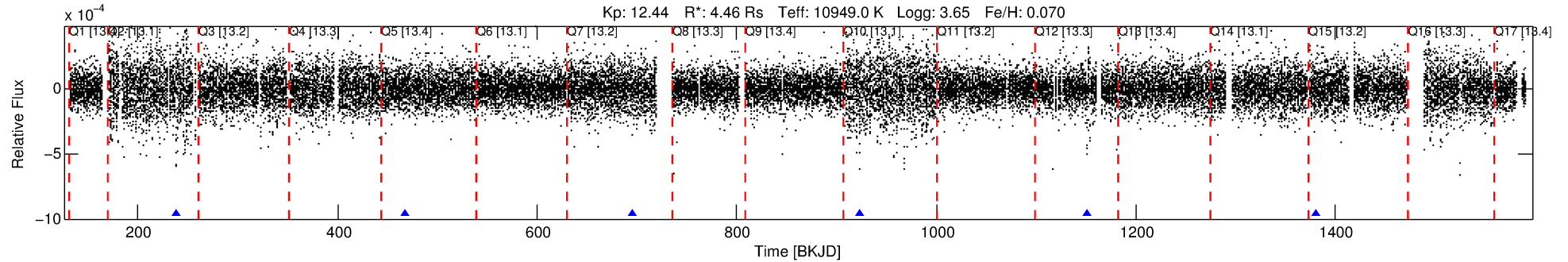
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008881883-03

No Significant Match Found

DV One-Page Summary

KIC: 8881883 Candidate: 3 of 5 Period: 228.198 d



DV Fit Results:

Period = 228.19825 [0.00259] d
Epoch = 238.8509 [0.0071] BKJD
Rp/R* = 0.0215 [0.0037]
a/R* = 291.27 [338.35]
b = 0.92 [0.20]
Seff = 219.04 [158.64]
Teq = 981 [178] K
Rp = 10.48 [4.83] Re
a = 1.0826 [0.4633] AU
Ag = 1074.23 [863.41] [1.24 σ]
Teffp = 8683 [952] K [7.95 σ]

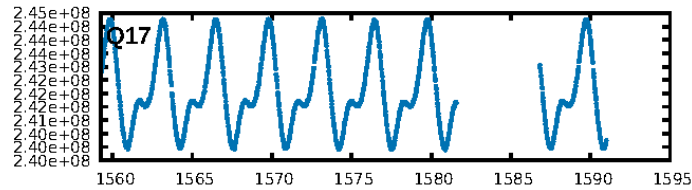
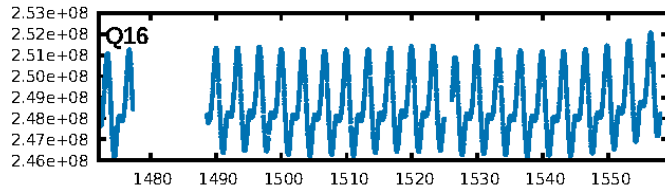
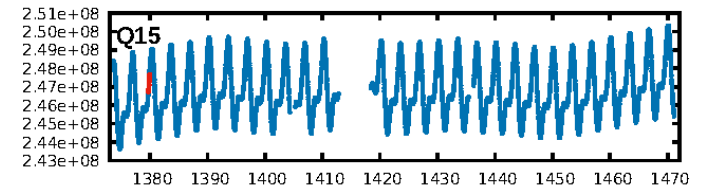
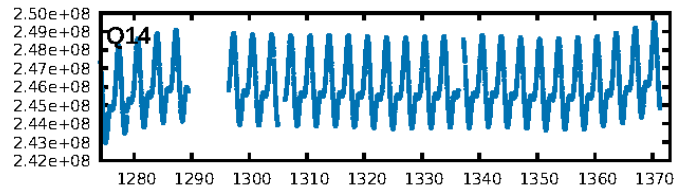
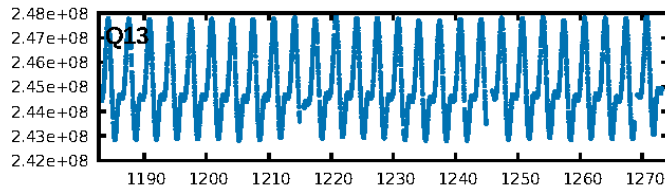
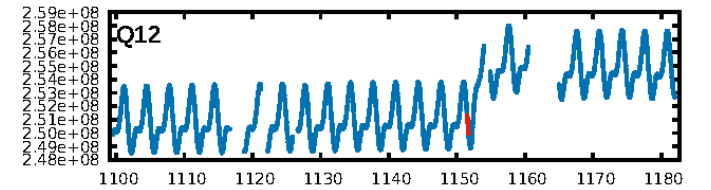
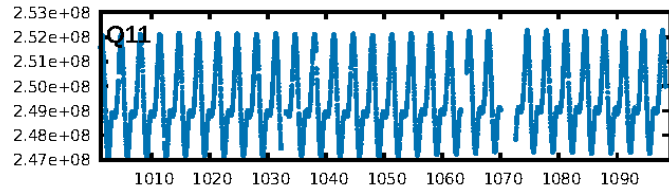
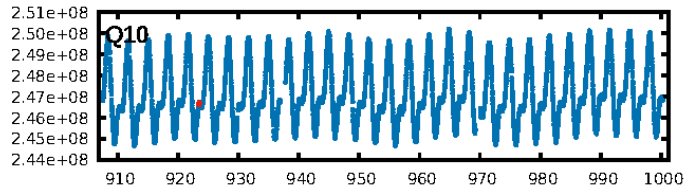
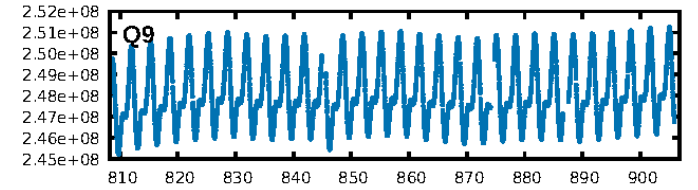
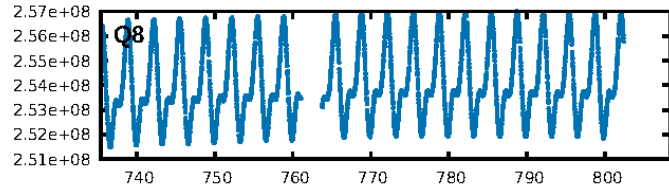
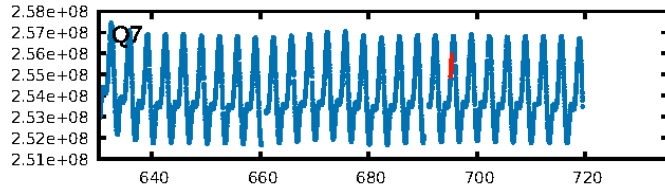
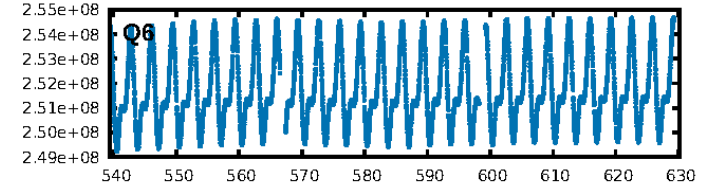
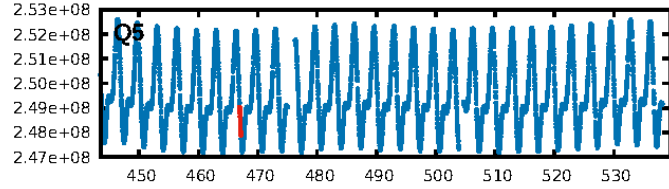
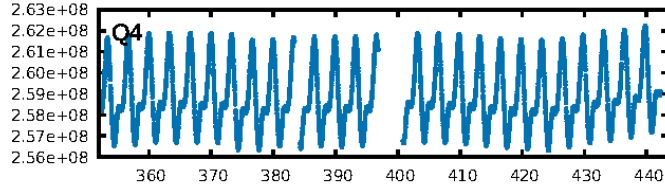
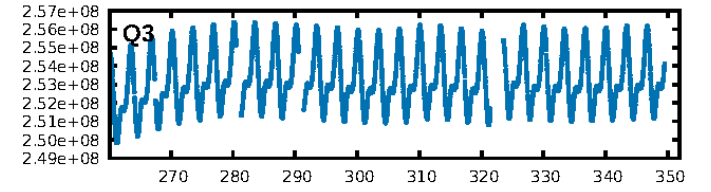
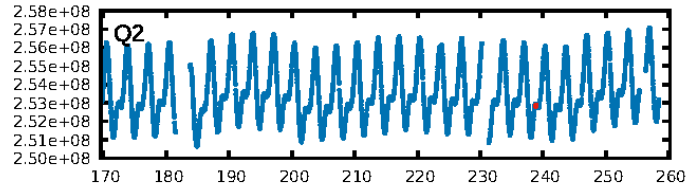
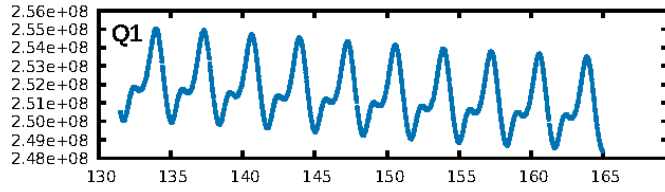
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [271.19 σ]
LongPeriod-sig: 100.0% [1474.42 σ]
ModelChiSquare2-sig: 48.6%
ModelChiSquareGof-sig: 94.6%
Bootstrap-pfa: 4.28e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -1.52
Centroid-sig: N/A
Centroid-so: 0.631 arcsec [0.89 σ]
OotOffset-rm: 1.185 arcsec [2.60 σ]
OotOffset-st: 2/2/1/1 [6]
KicOffset-rm: 1.310 arcsec [3.06 σ]
KicOffset-st: 2/2/1/1 [6]
DiffImageQuality-fgm: 0.50 [3/6]
DiffImageOverlap-fno: 0.33 [2/6]

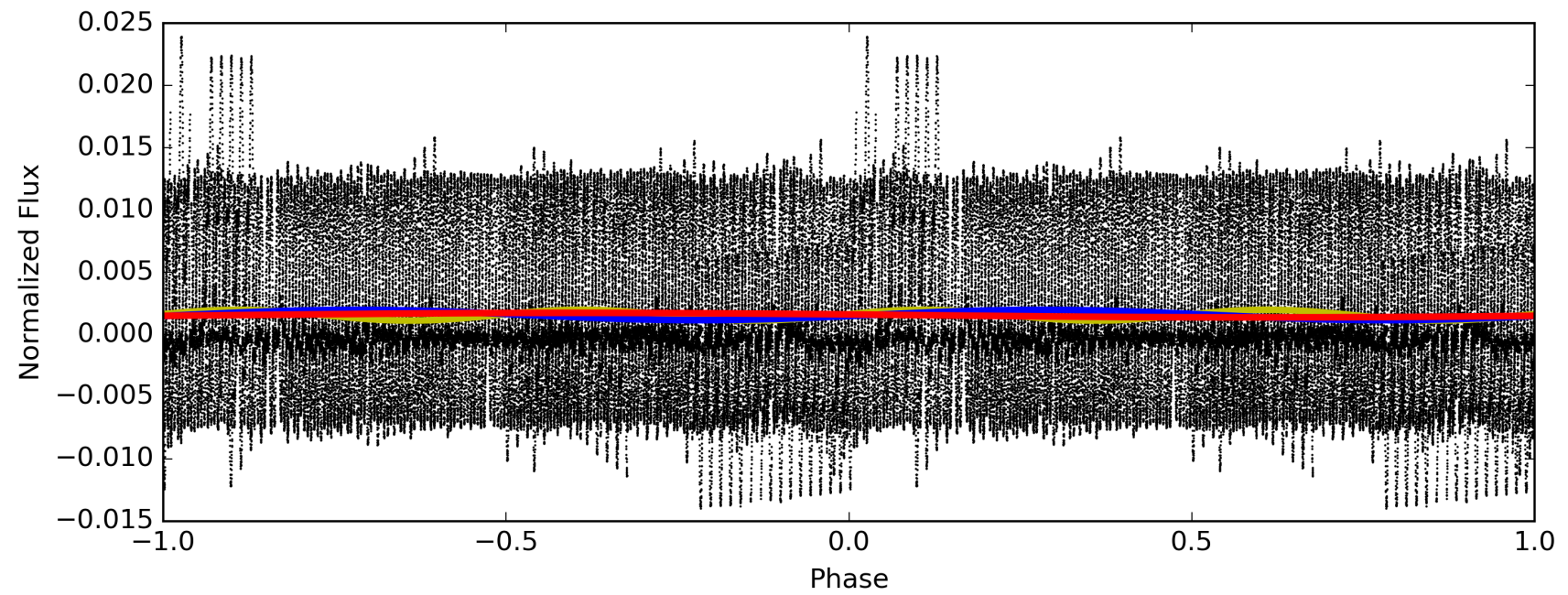
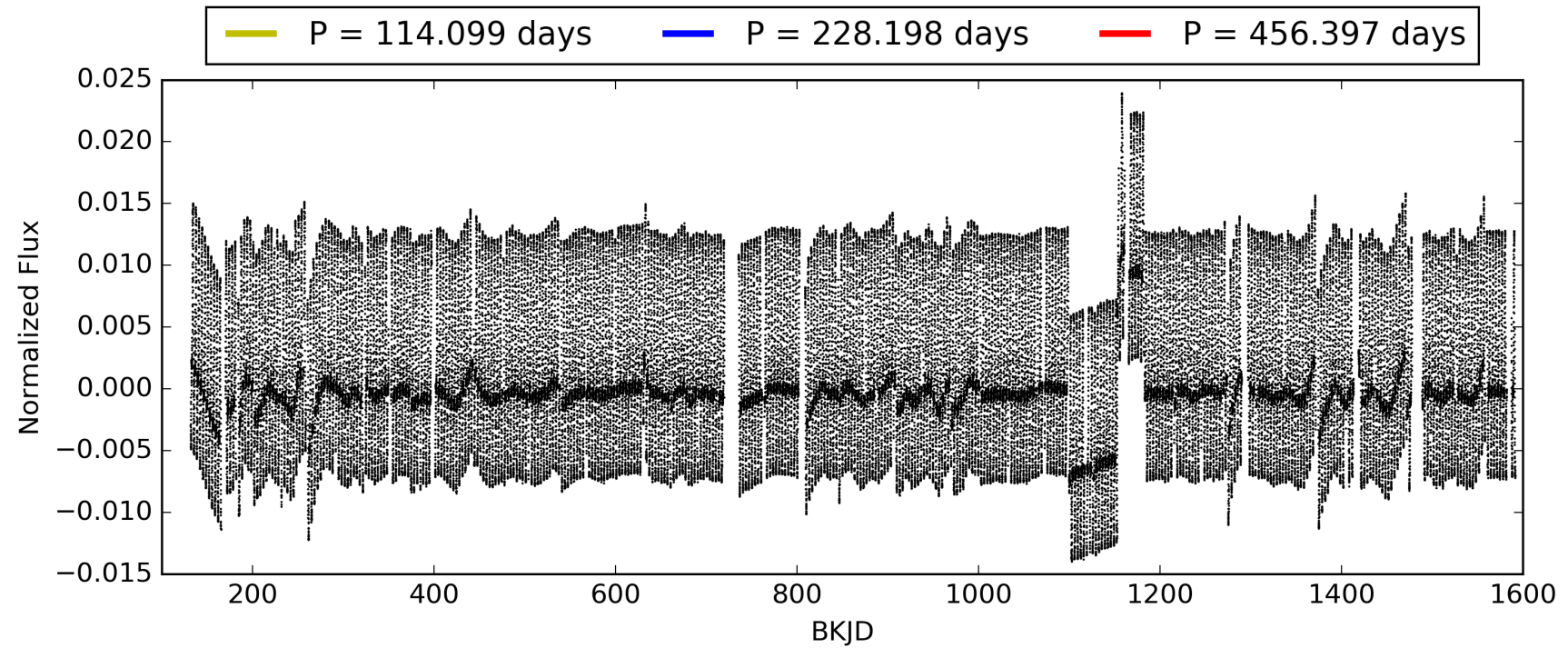
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:09:28 Z

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

TCE 008881883-03, PDC Light Curves

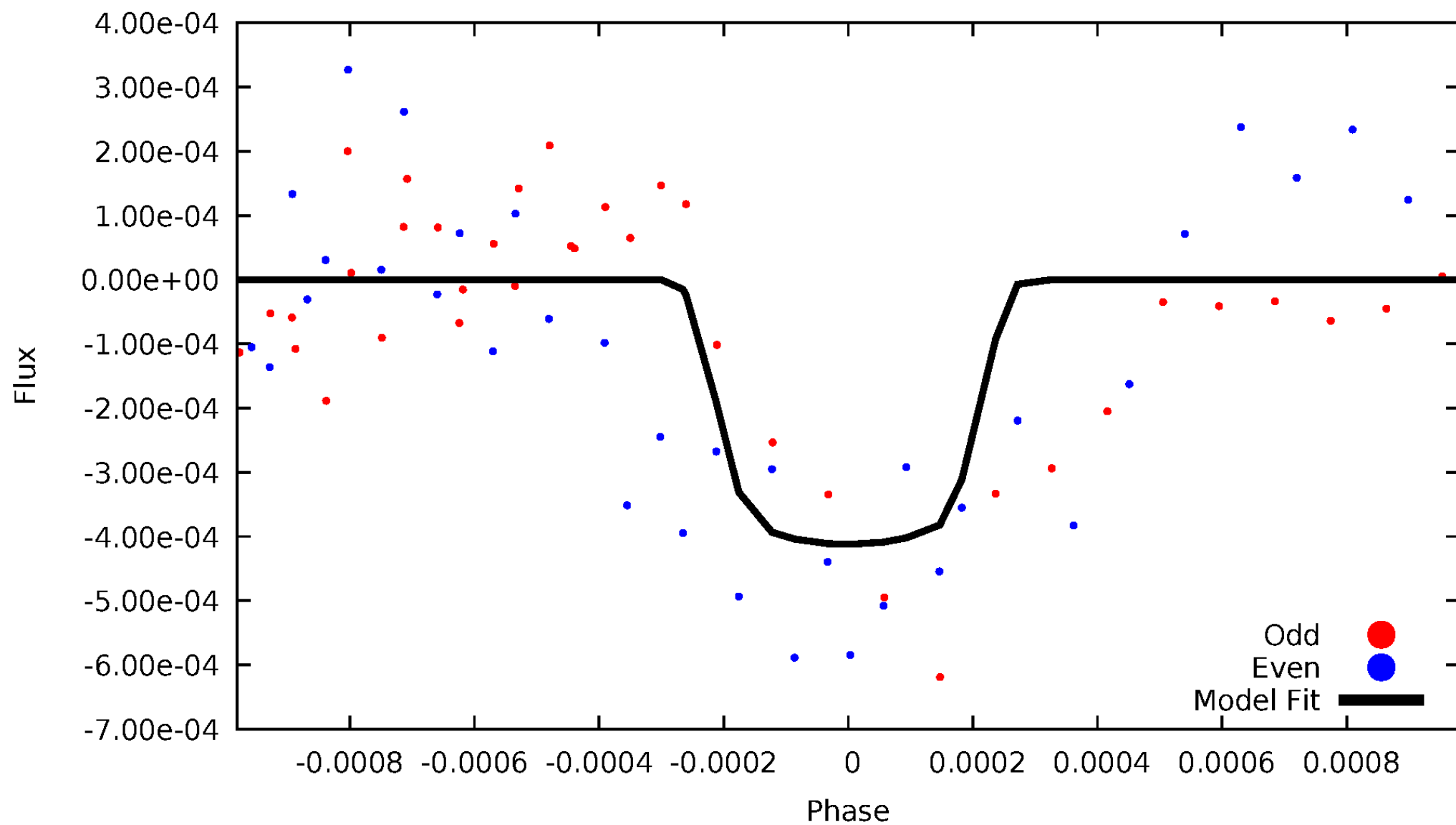


TCE 008881883-03



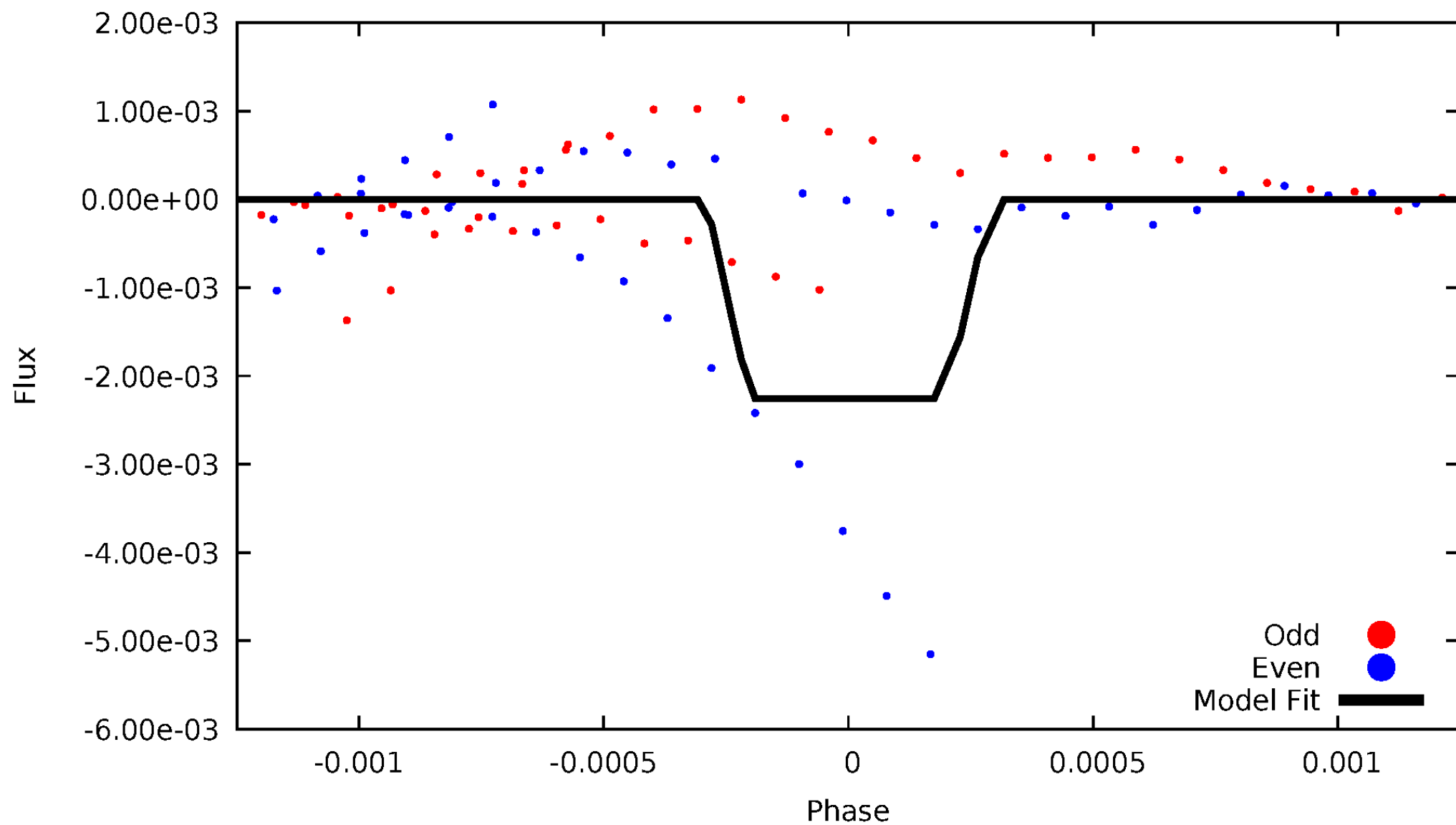
DV Odd/Even

TCE 008881883-03



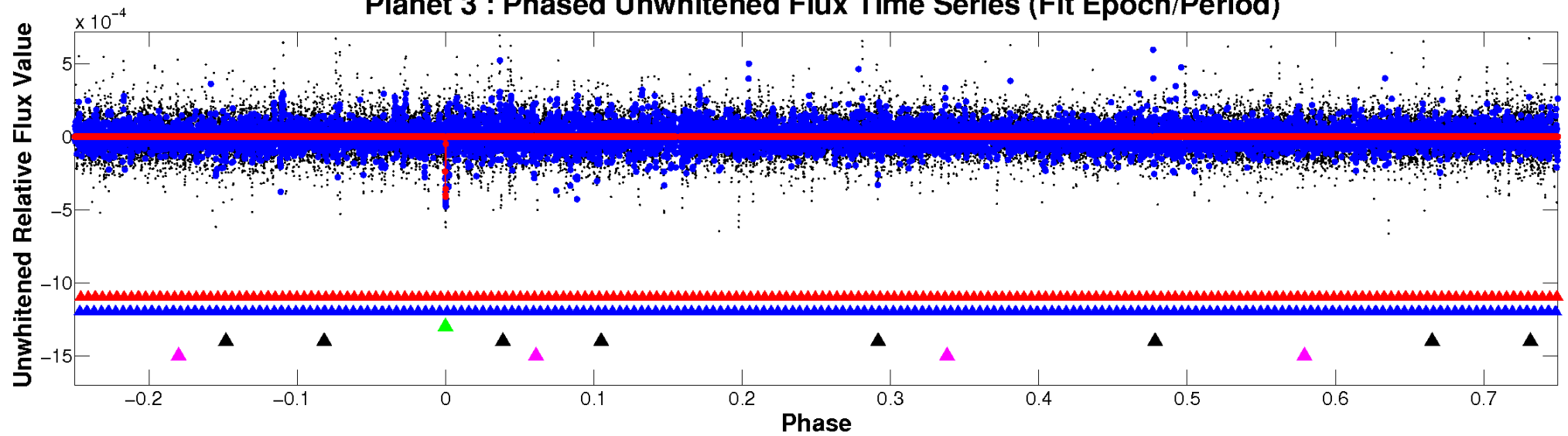
ALT Odd/Even

TCE 008881883-03

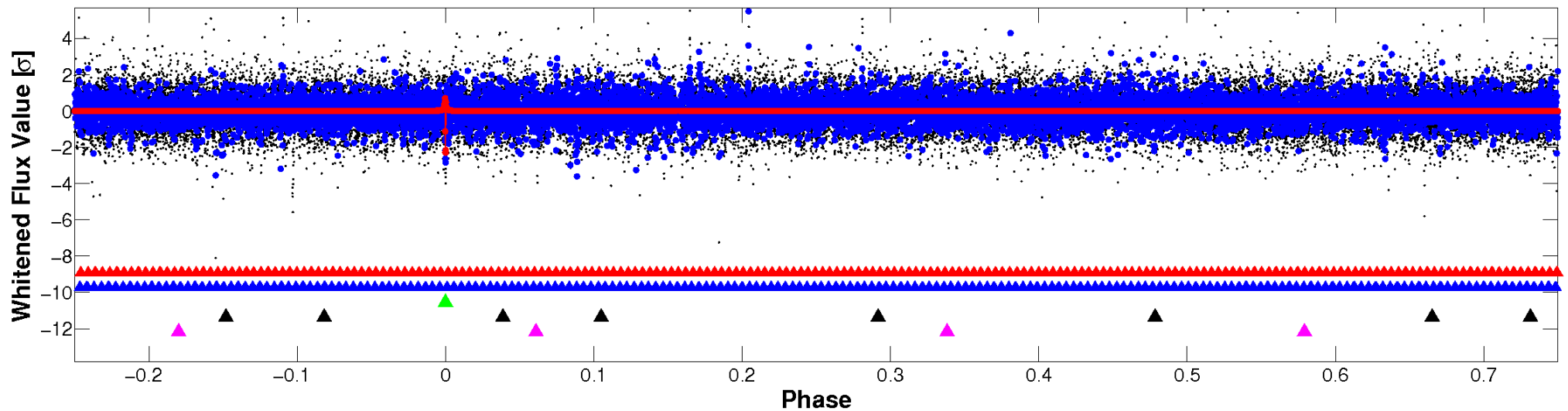


Non-Whitened Vs. Whitened Light Curve

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

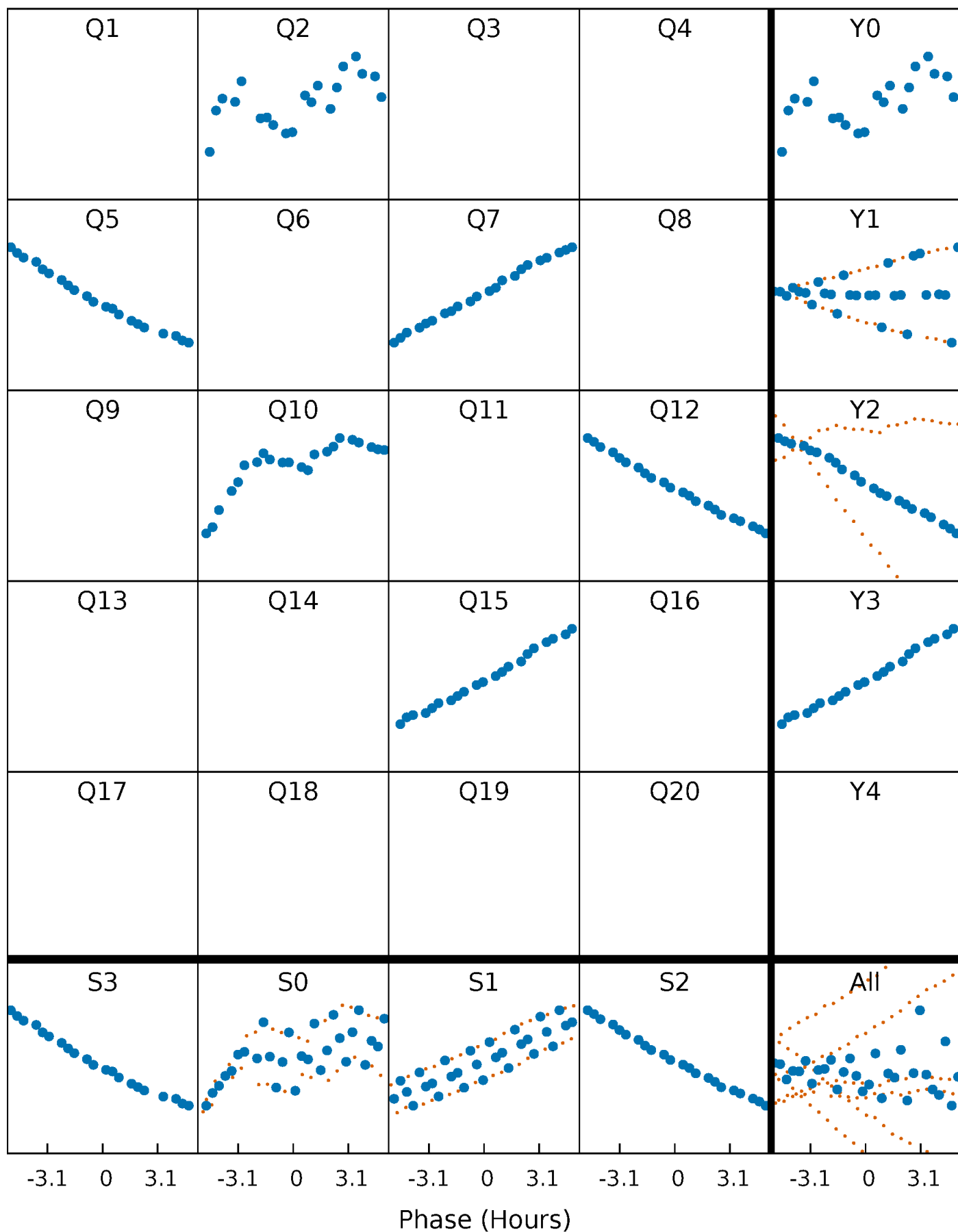


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



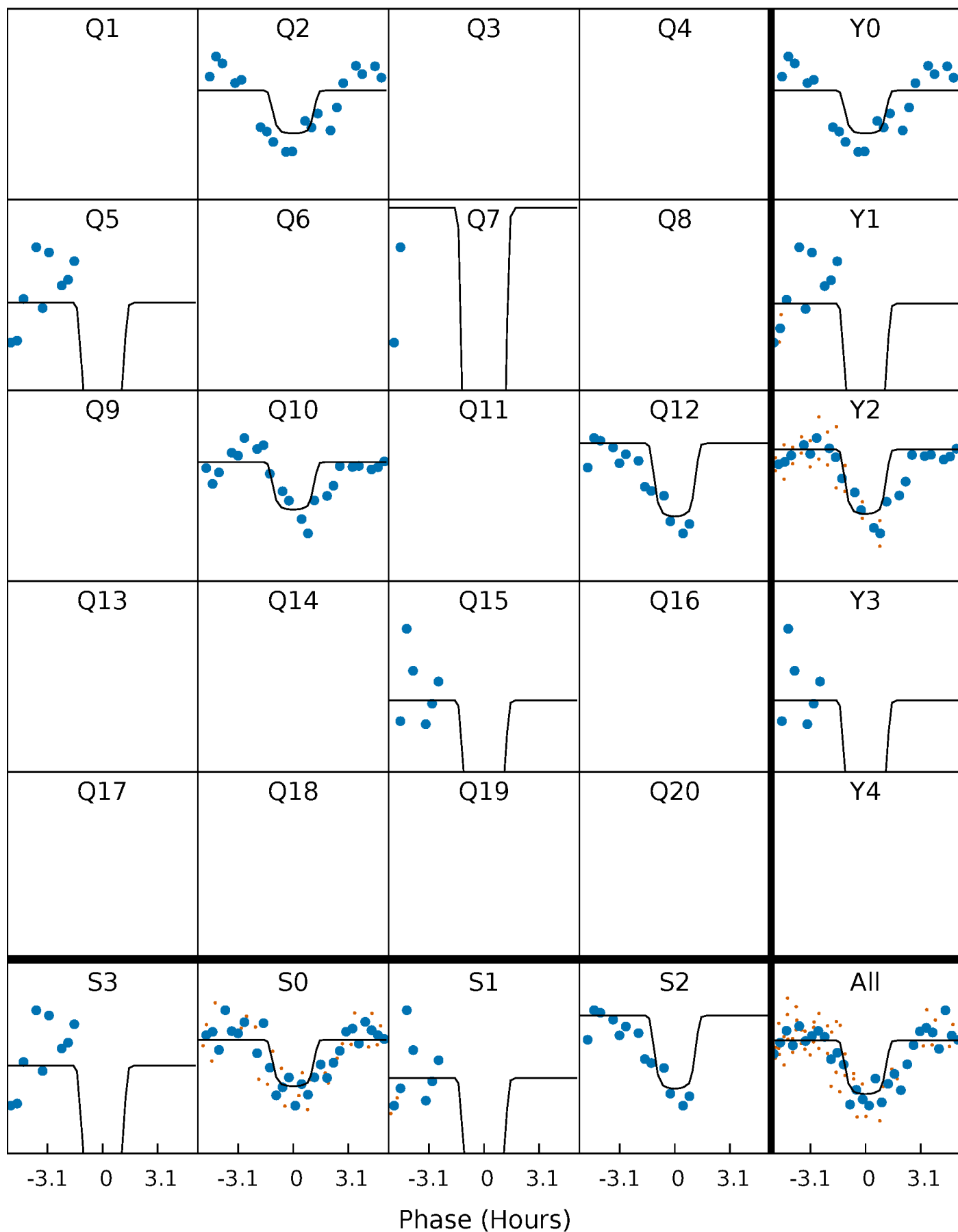
PDC Quarter-Phased Transit Curves

TCE 008881883-03 P=228.198251 Days $T_0=238.850933$ (BKJD)



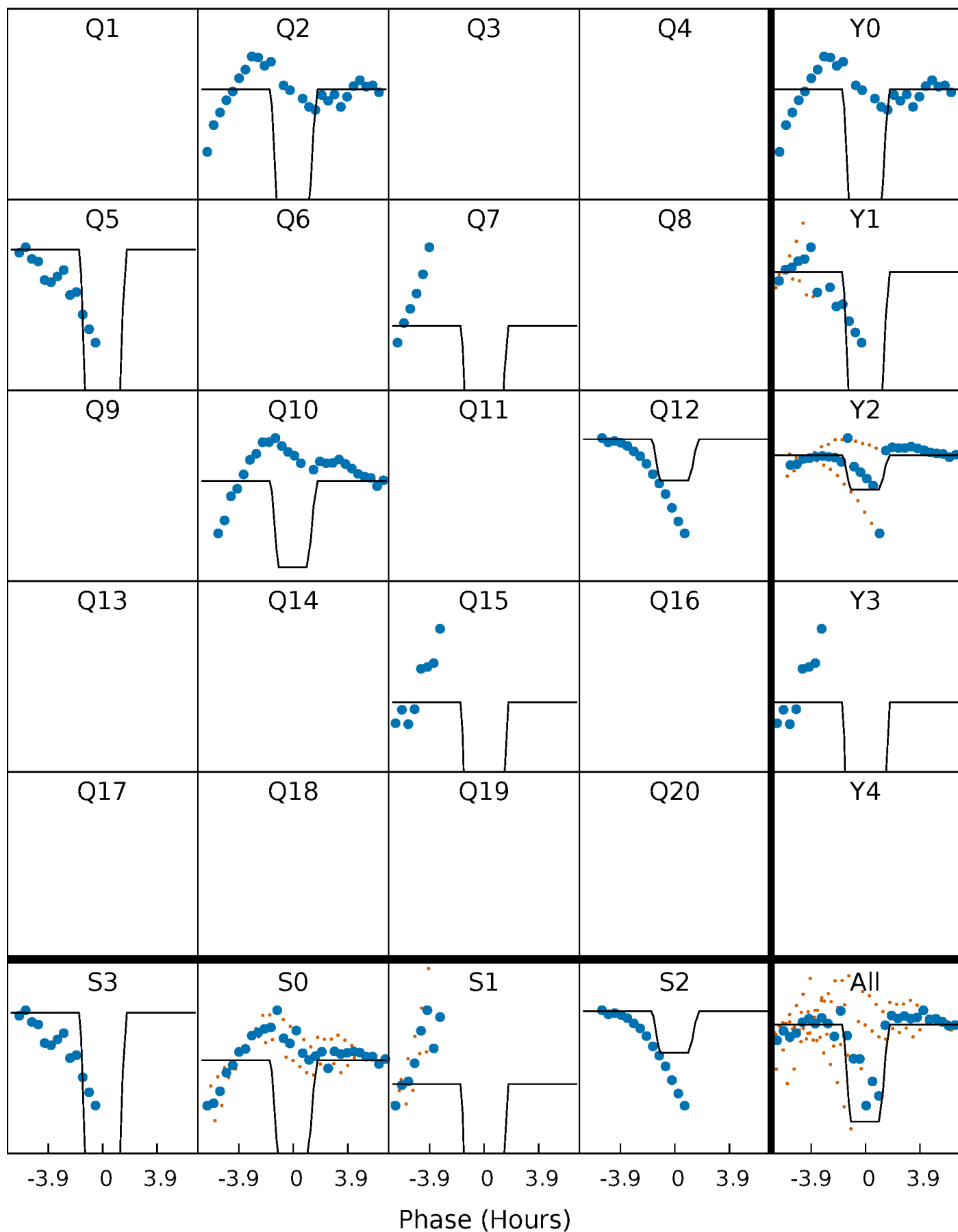
DV Quarter-Phased Transit Curves

TCE 008881883-03 P=228.198251 Days $T_0=238.850933$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

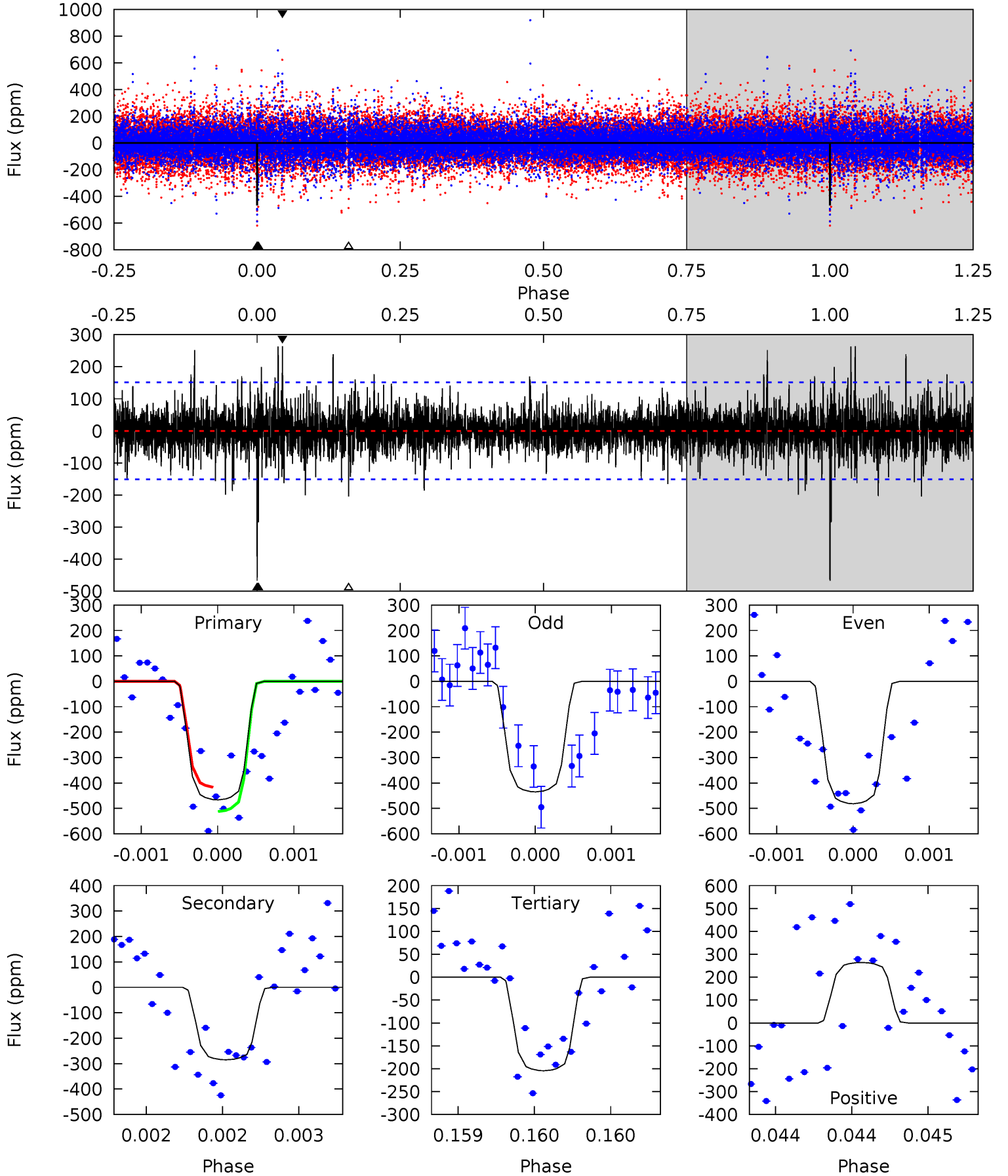
TCE 008881883-03 P=228.211933 Days $T_0=238.791245$ (BKJD)



DV Model-Shift Uniqueness Test

008881883-03, P = 228.198251 Days, E = 10.652682 Days

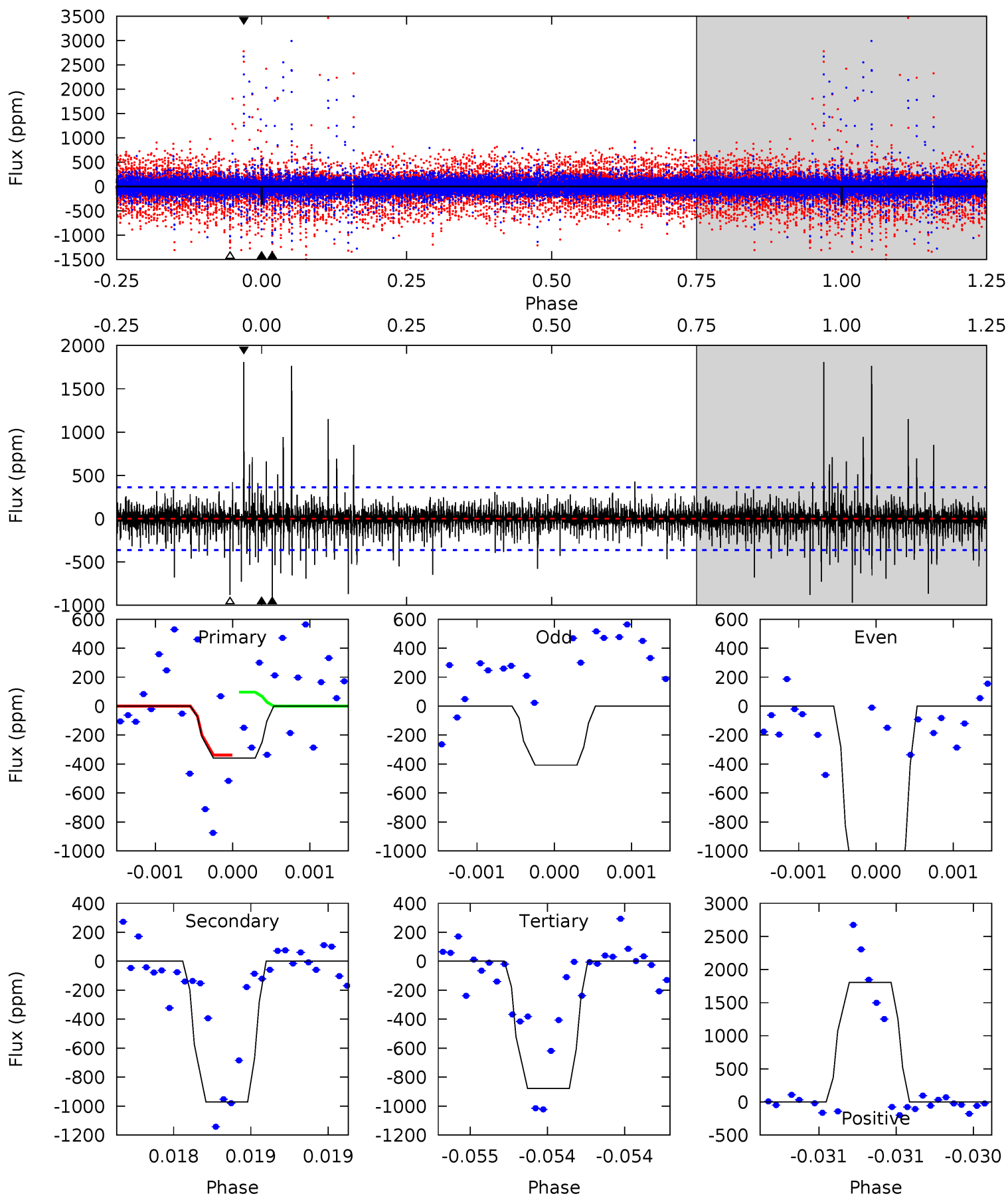
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	10.5	7.52	9.71	5.56	3.46	1.62	9.64	7.45	2.96	0.77	0.81	1.05	0.36	1.76



Alt Model-Shift Uniqueness Test

008881883-03, P = 228.211933 Days, E = 10.579312 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.50	14.9	13.5	27.7	5.54	3.43	1.64	-7.96	-22.2	1.41	-12.8	6.21	1.90	0.65	1.91



Stellar Parameters For KIC 008881883

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	10949^{+221}_{-516}	$3.650^{+0.416}_{-0.073}$	$0.070^{+0.150}_{-0.550}$	$4.465^{+0.509}_{-1.909}$	$3.249^{+0.088}_{-0.791}$	$0.051^{+0.193}_{-0.012}$
	+2%/-5%	+11%/-2%	+214%/-786%	+11%/-43%	+3%/-24%	+376%/-24%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008881883-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-285 ± 27	$9.50^{+2.47}_{-2.28}$	1321^{+84}_{-154}	9024^{+1355}_{-995}	1951^{+1459}_{-704}
Alt.	-971 ± 65	$21.57^{+3.46}_{-5.33}$	1321^{+88}_{-169}	8099^{+474}_{-466}	1316^{+949}_{-326}

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 $A_{obs} \gg 1.0$

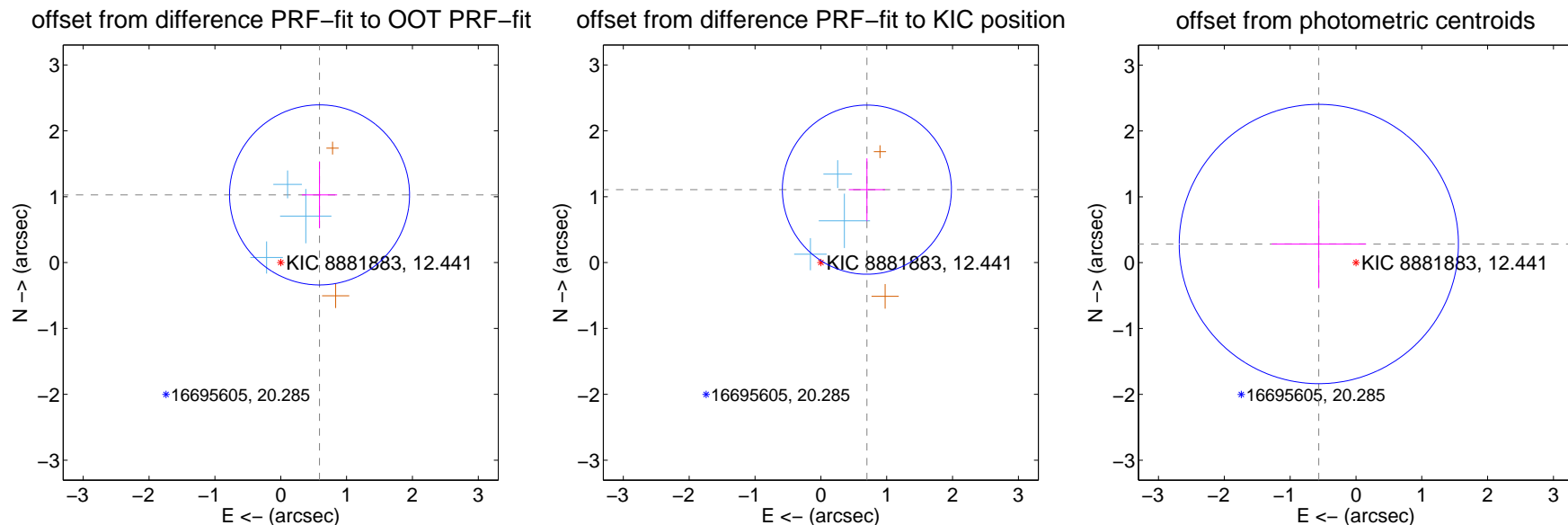
DV Centroid Data

Supplemental centroid analysis for 008881883-03. Kepler magnitude: 12.44. Transit SNR 8.34

There are 3 quarters with good PRF difference image offsets

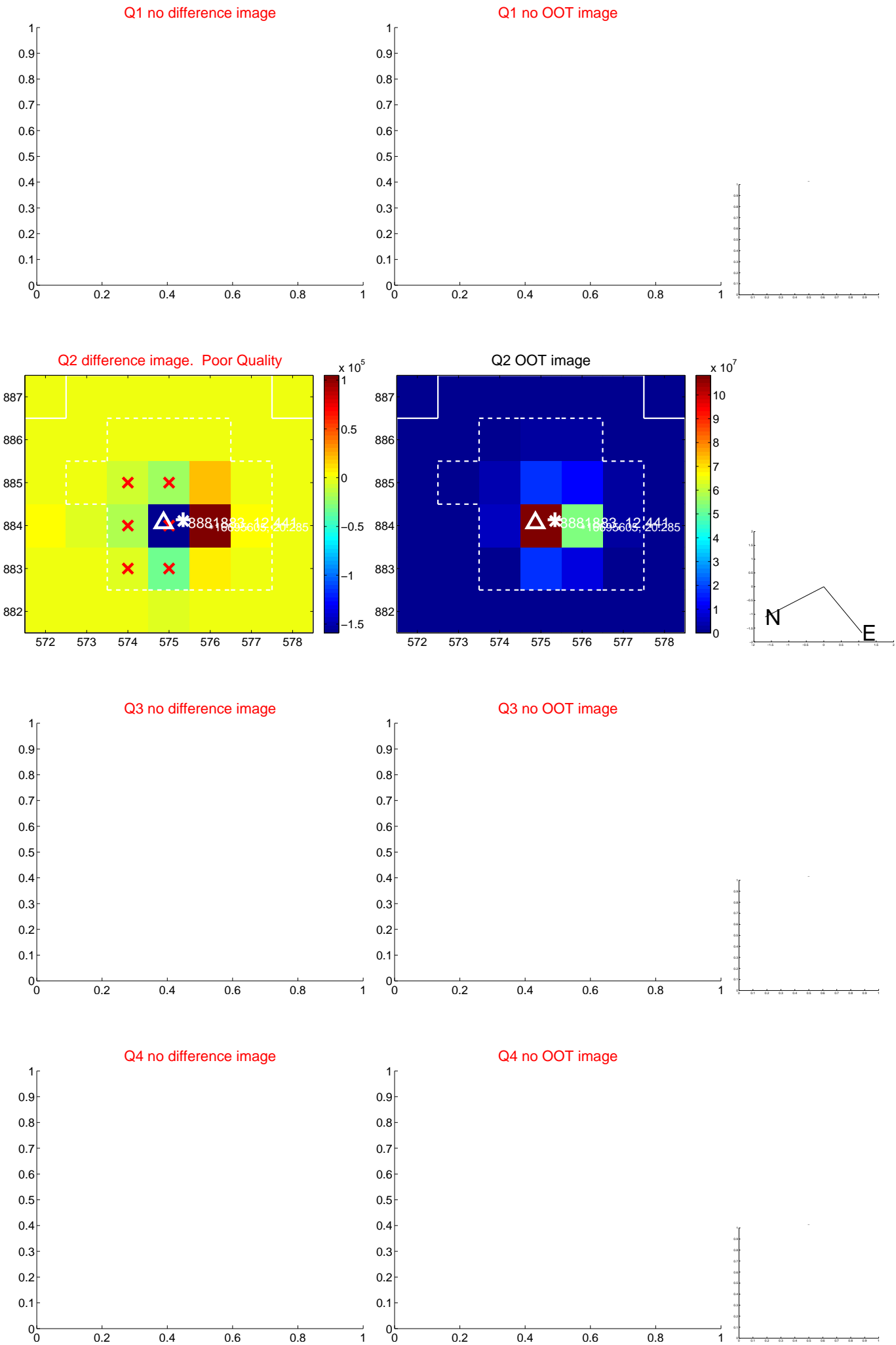
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.185 ± 0.456	2.60	-0.589 ± 0.267	1.028 ± 0.502
PRF-fit source offset from KIC position	1.310 ± 0.428	3.06	-0.699 ± 0.275	1.107 ± 0.475
photometric centroid source offset	0.63 ± 0.71	0.89	0.56 ± 0.72	0.28 ± 0.67

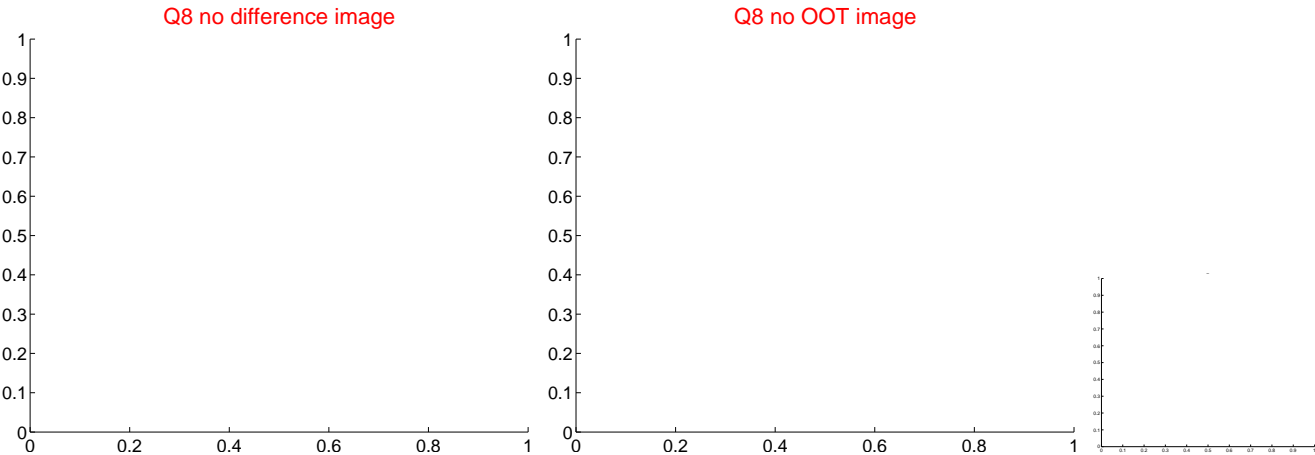
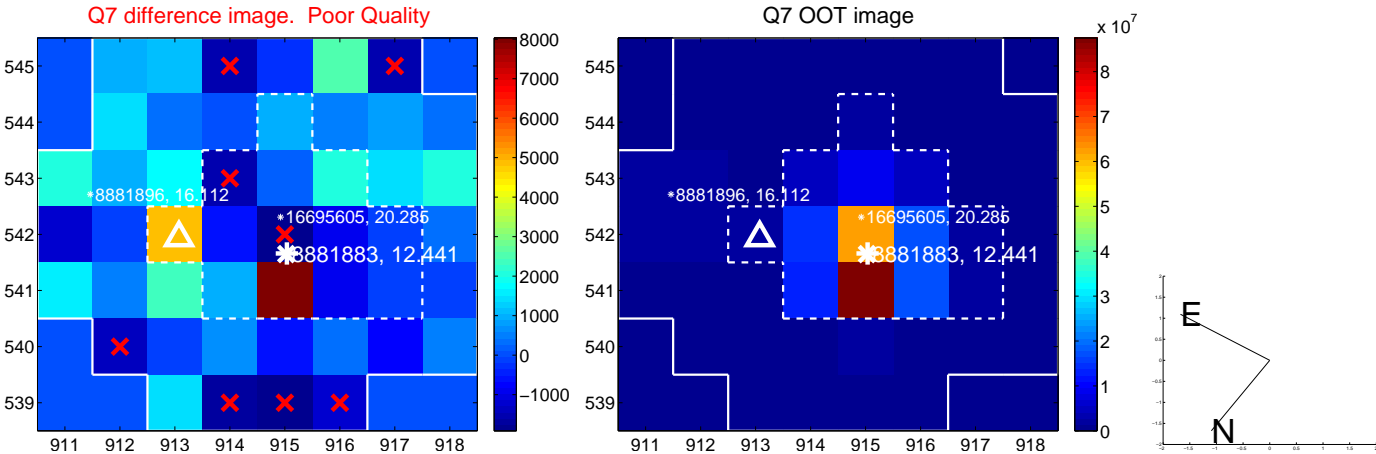
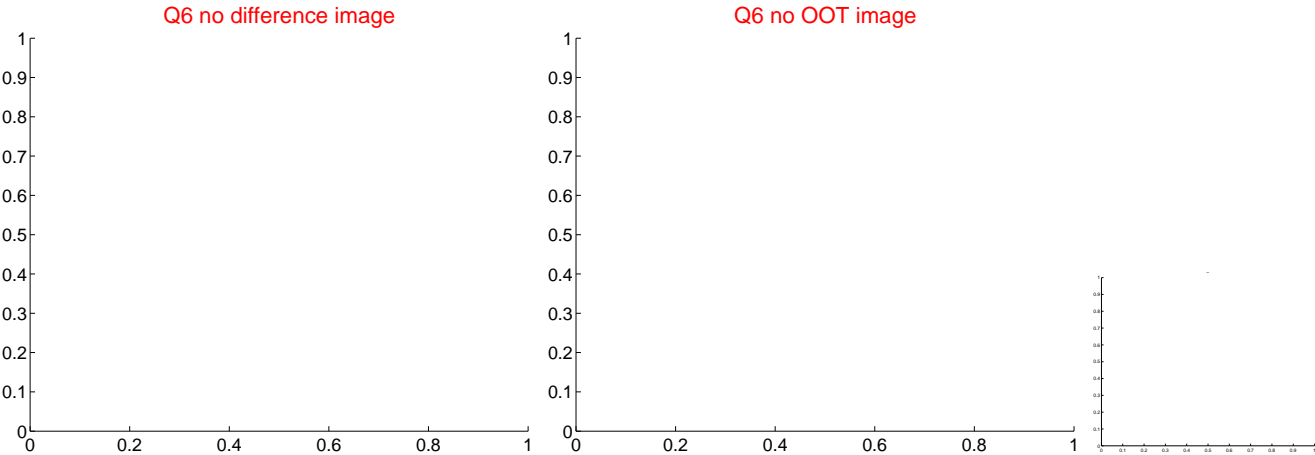
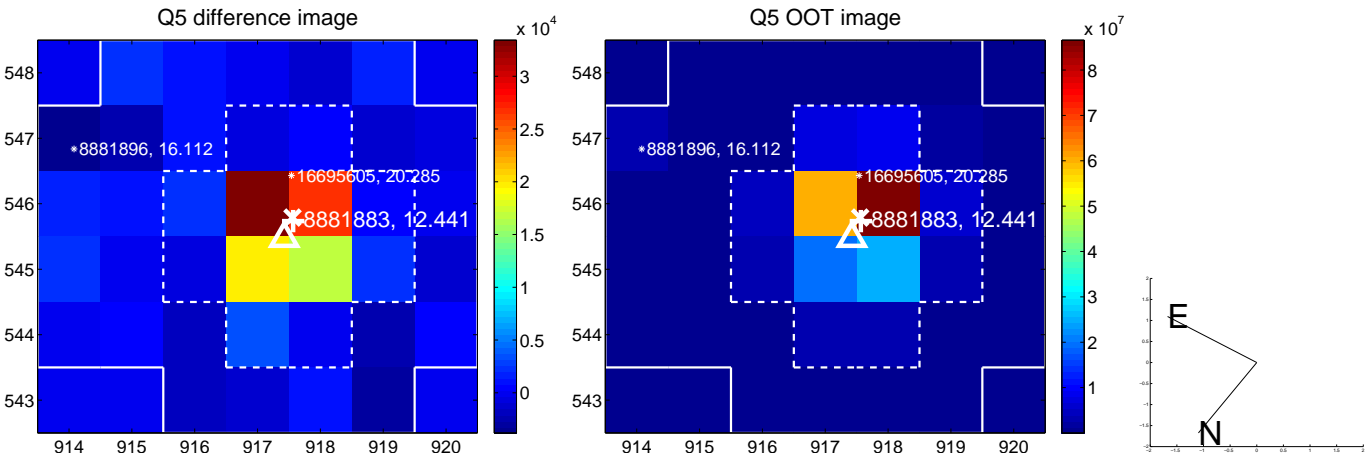


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

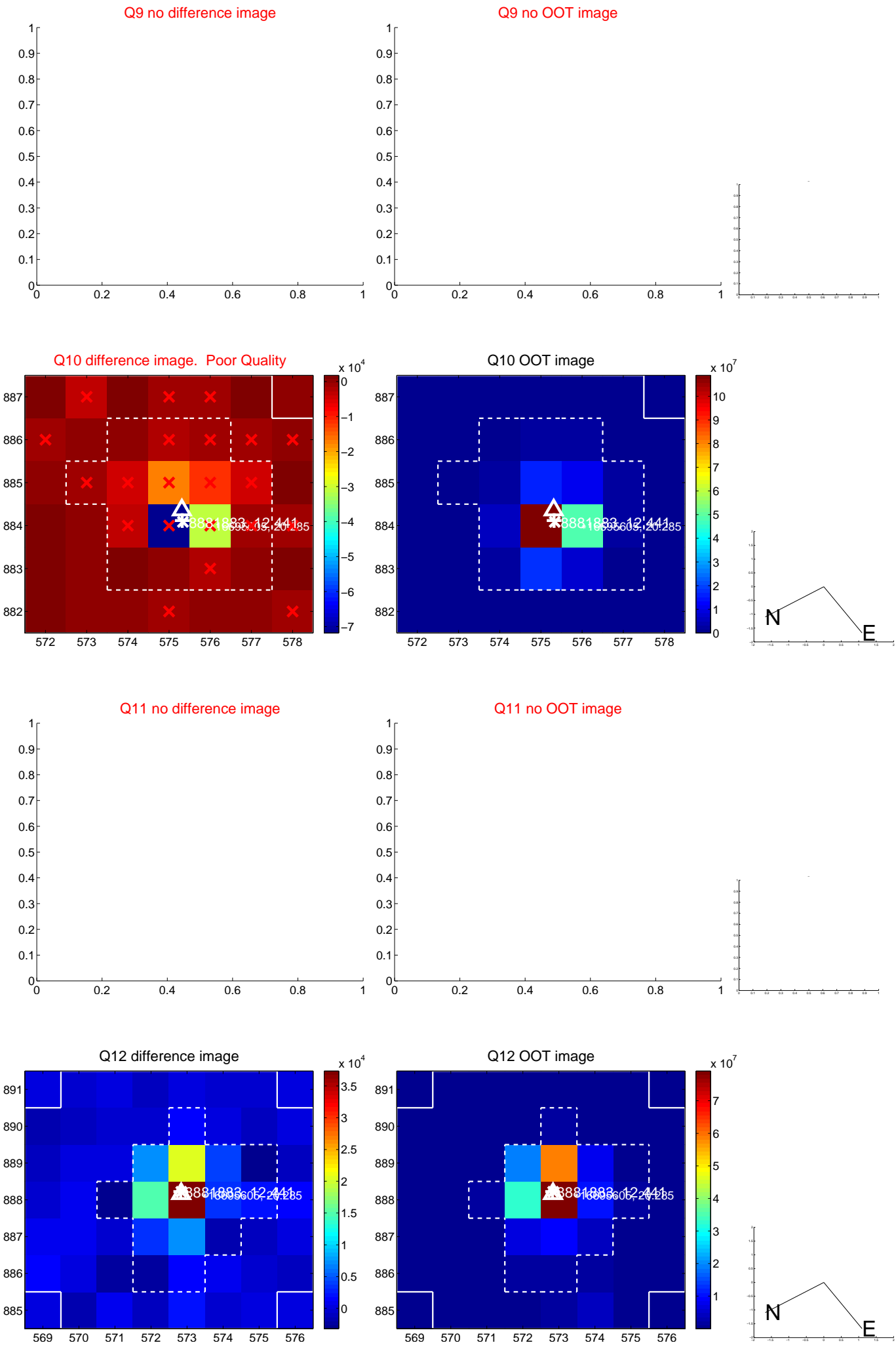
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



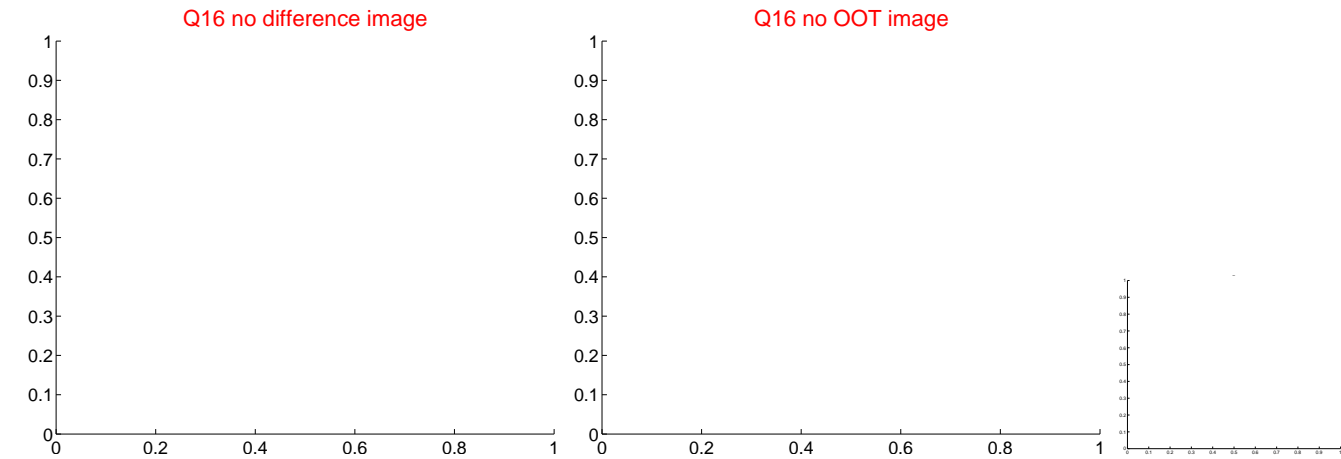
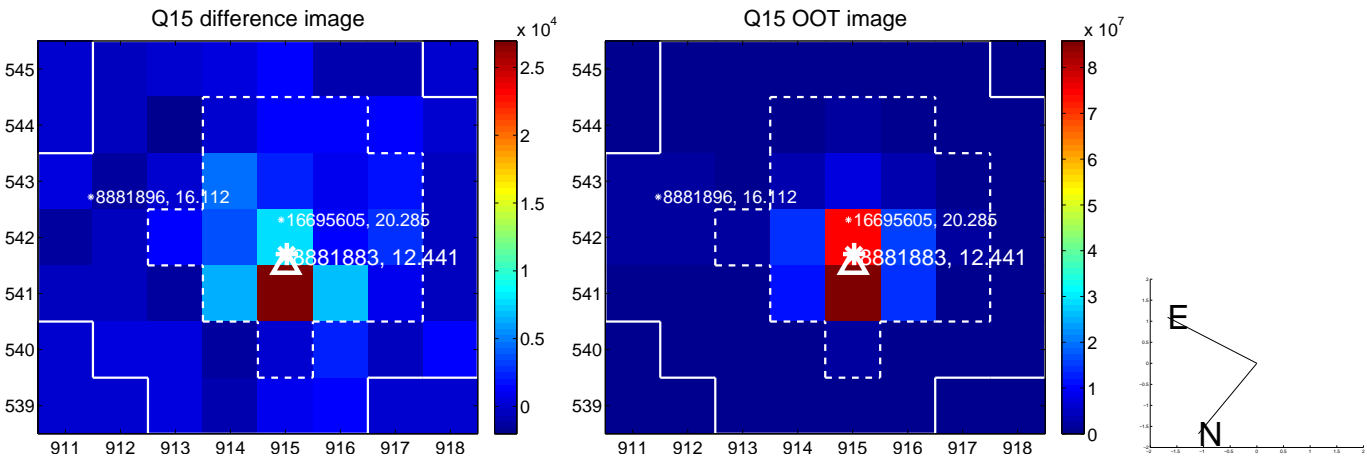
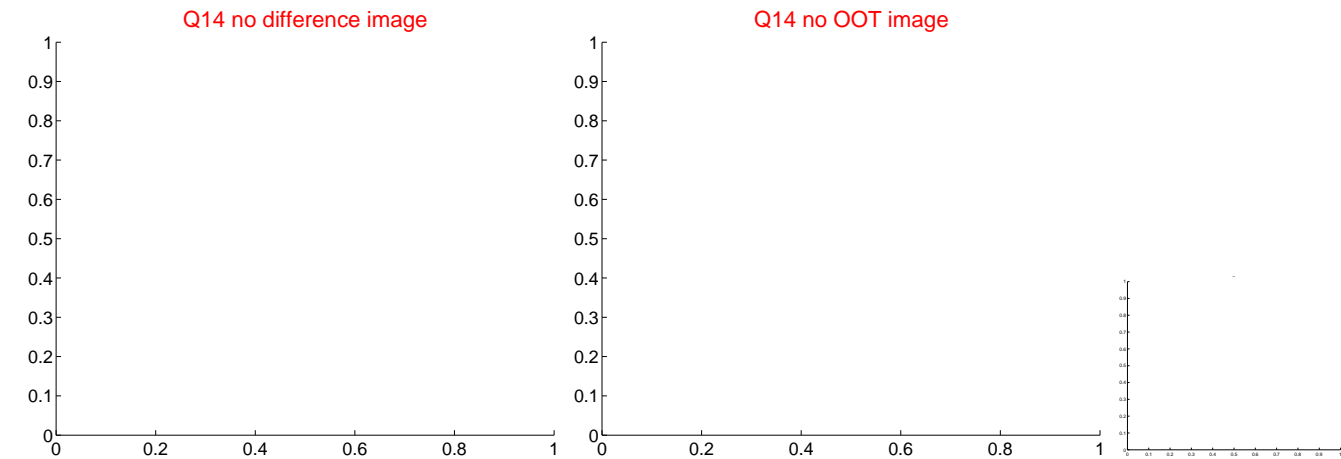
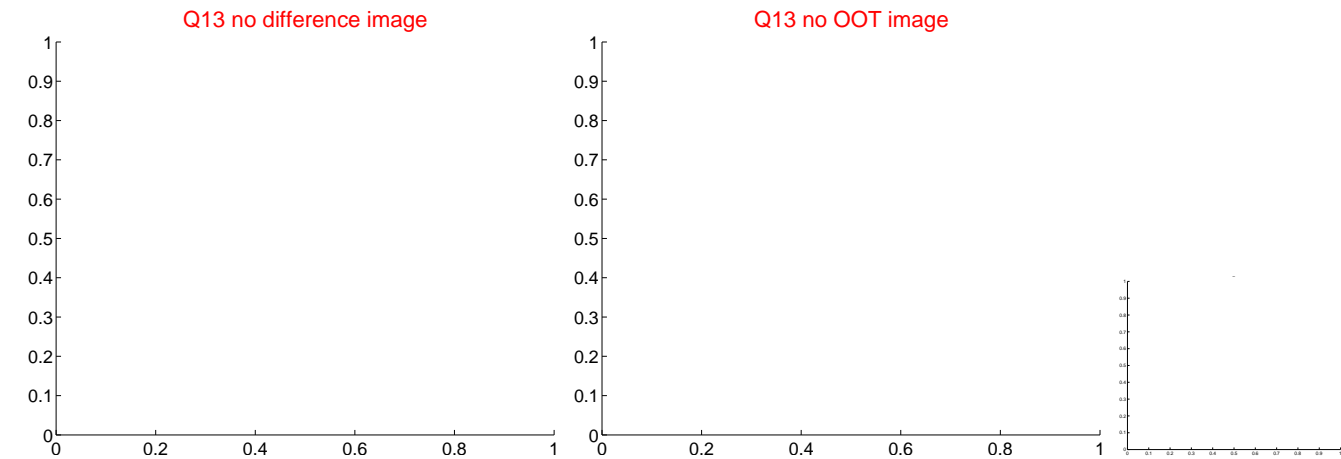
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



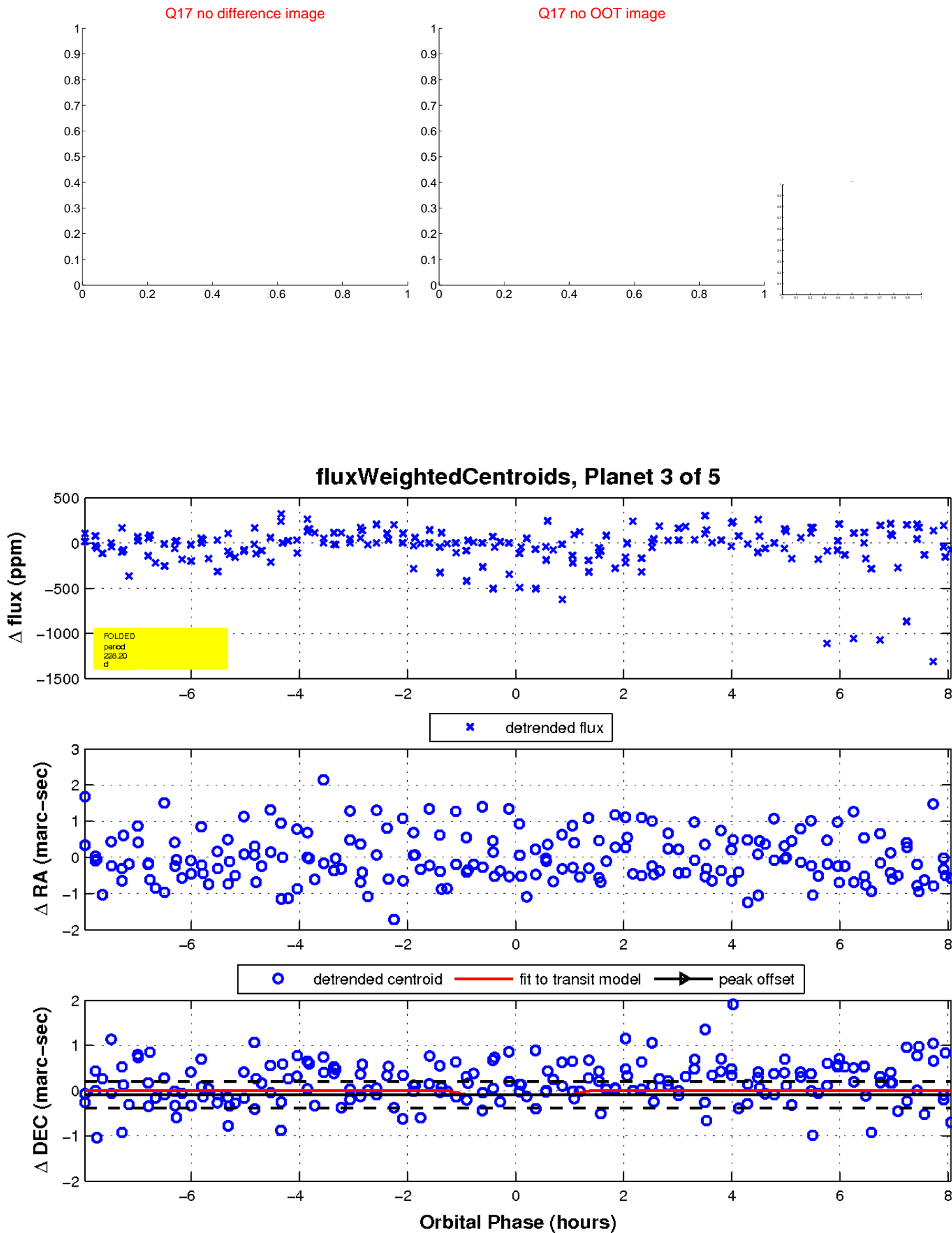
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

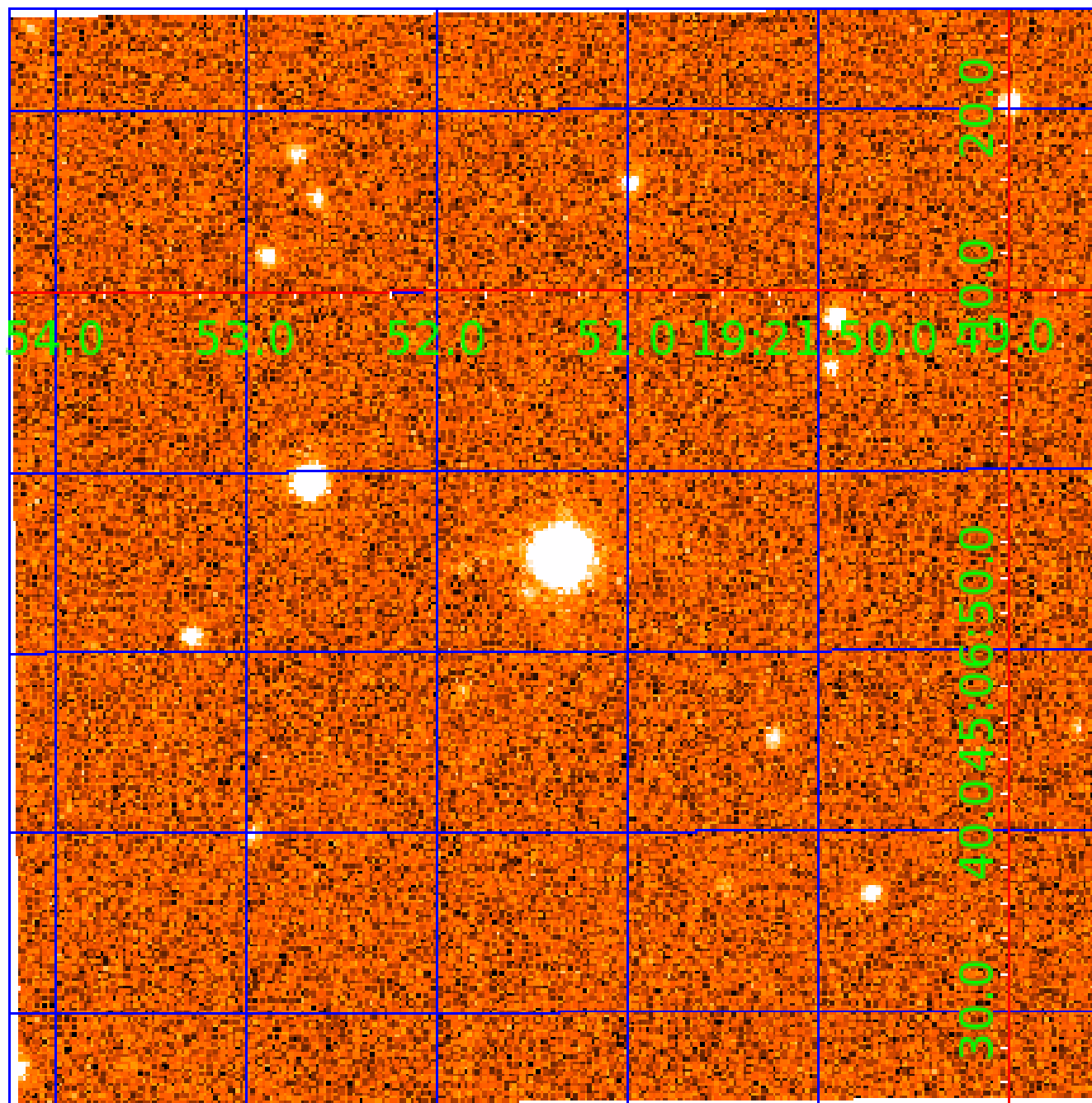


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008881883

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})
008881883-01	OBS	No	3.323657	131.718506	35.6	6.269	13.1	11.6	4.46	10949	3.49	61581.68
008881883-02	OBS	No	3.323760	133.734846	75.6	6.000	9.1	-1.0	4.46	10949	4.00	61579.13
008881883-03	OBS	No	228.198252	238.850933	412.2	2.685	8.4	8.3	4.46	10949	10.48	219.04
008881883-04	OBS	No	185.582504	247.688557	204.1	2.648	7.8	4.0	4.46	10949	7.35	288.55
008881883-05	OBS	No	401.413898	252.776667	114.1	0.860	7.7	1.9	4.46	10949	5.50	103.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008881883-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008881883-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
008881883-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008881883-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008881883-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—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.

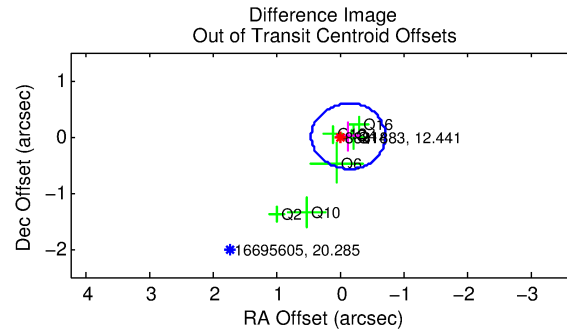
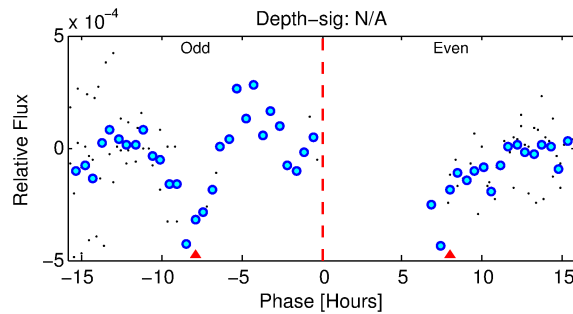
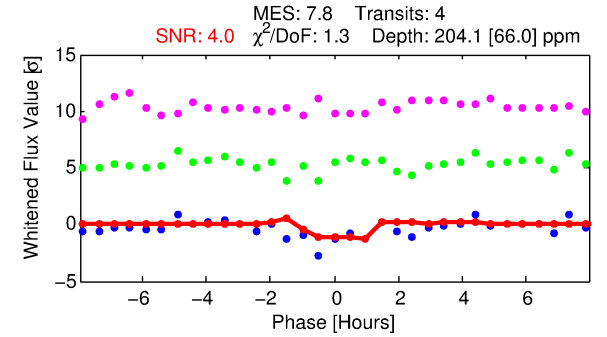
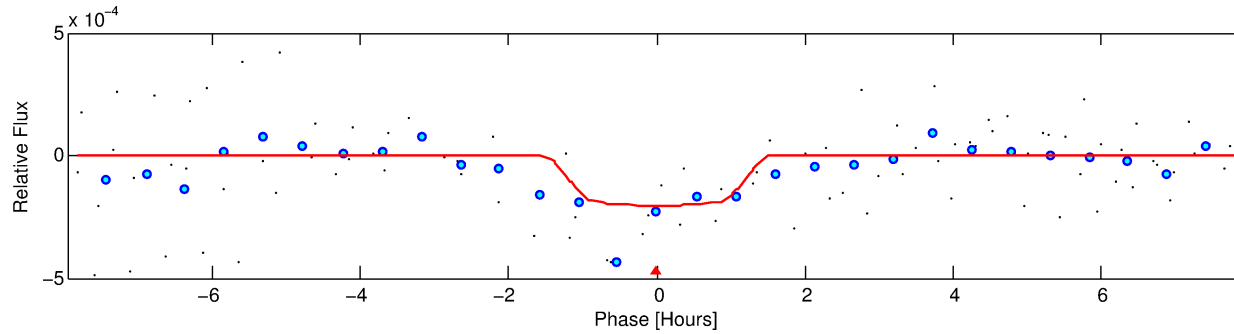
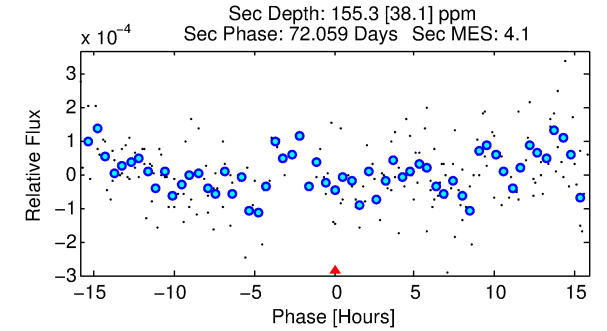
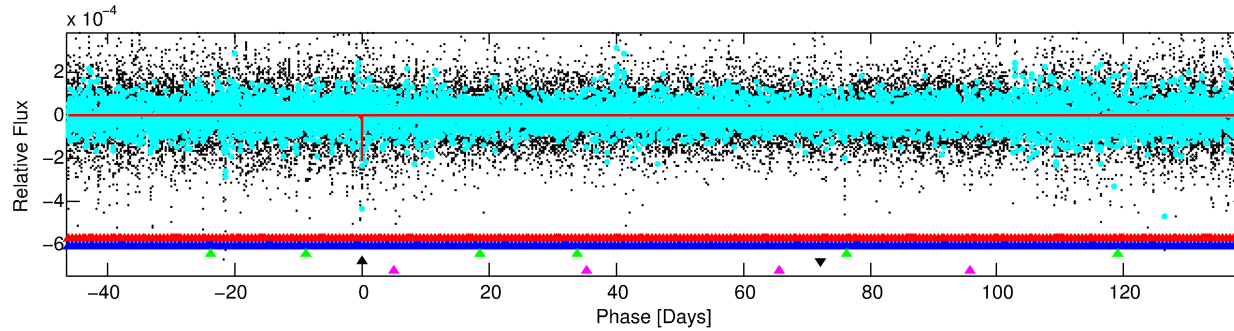
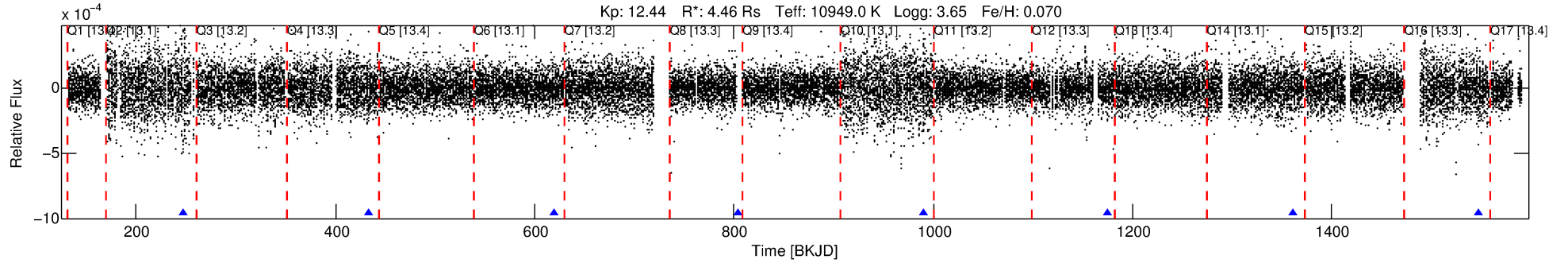
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008881883-04

No Significant Match Found

DV One-Page Summary

KIC: 8881883 Candidate: 4 of 5 Period: 185.583 d



DV Fit Results:

Period = 185.58250 [0.00207] d
Epoch = 247.6886 [0.0090] BKJD
Rp/R* = 0.0151 [0.0119]
a/R* = 237.44 [1541.68]
b = 0.91 [1.19]
Seff = 288.55 [208.99]
Teq = 1051 [190] K
Rp = 7.35 [6.58] Re
a = 0.9432 [0.4037] AU
Ag = 1407.15 [2448.47] [0.57σ]
Teffp = 9952 [3992] K [2.23σ]

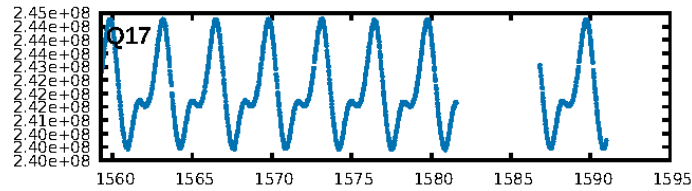
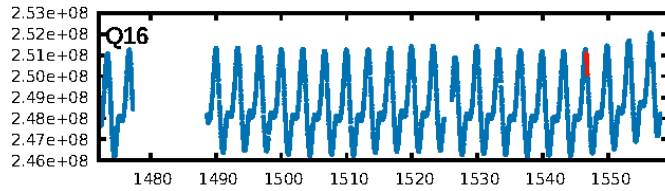
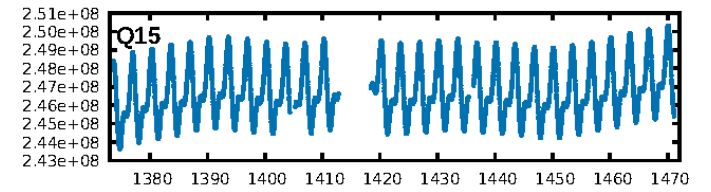
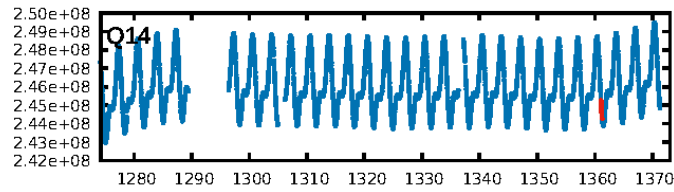
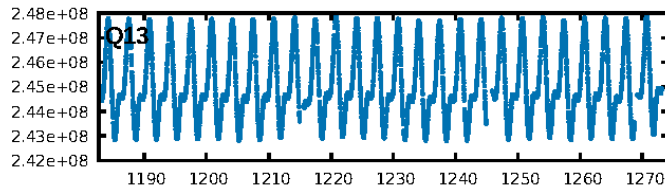
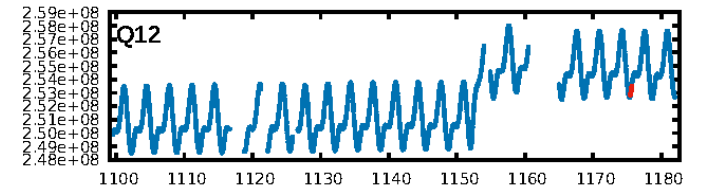
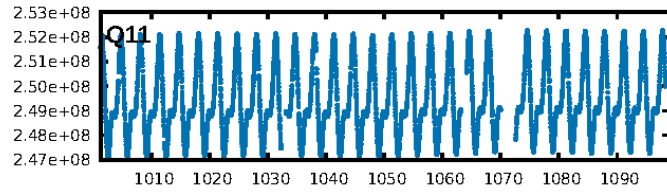
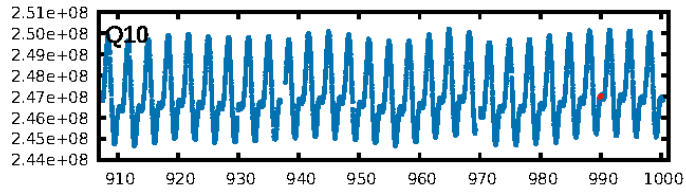
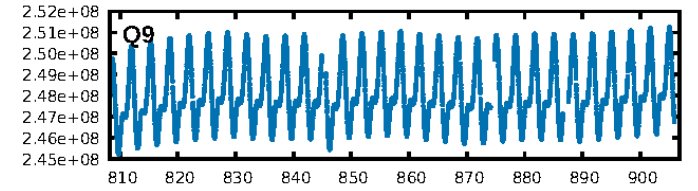
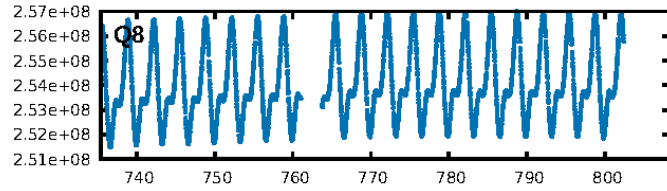
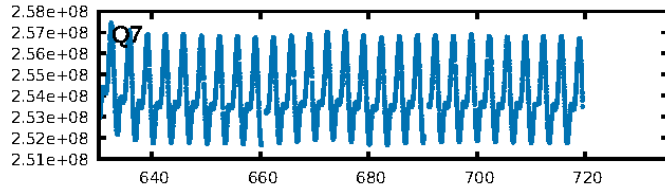
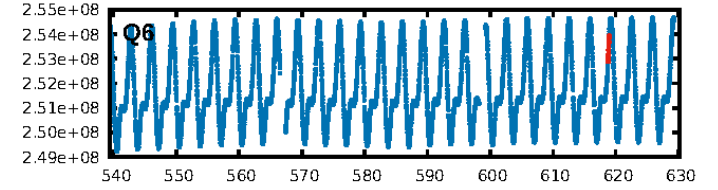
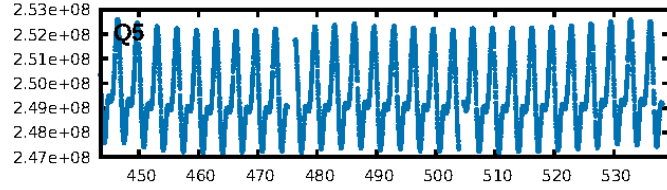
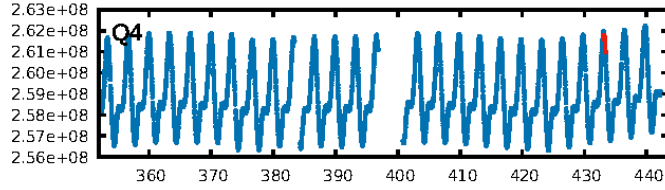
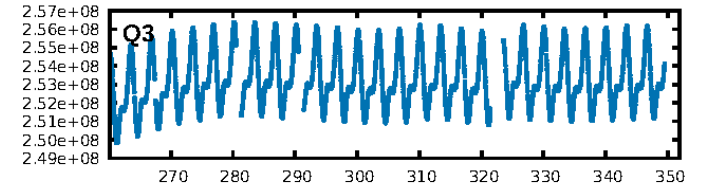
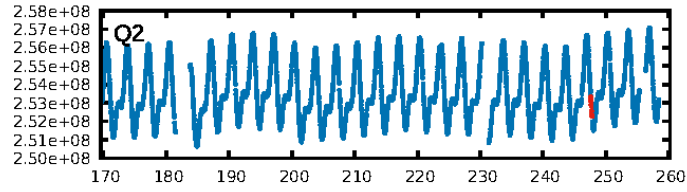
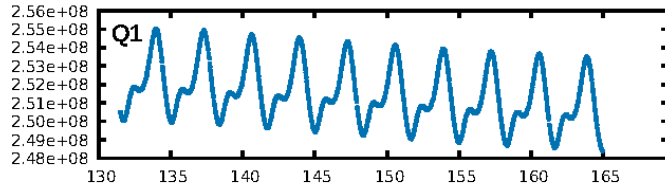
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [666.96σ]
LongPeriod-sig: 100.0% [271.19σ]
ModelChiSquare2-sig: 78.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.90e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.359
Centroid-sig: N/A
Centroid-so: 1.094 arcsec [0.90σ]
OotOffset-rm: 0.124 arcsec [0.64σ]
KicOffset-rm: 0.200 arcsec [0.89σ]
OotOffset-st: 4/0/3/0 [7]
KicOffset-st: 4/0/3/0 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 0.43 [3/7]

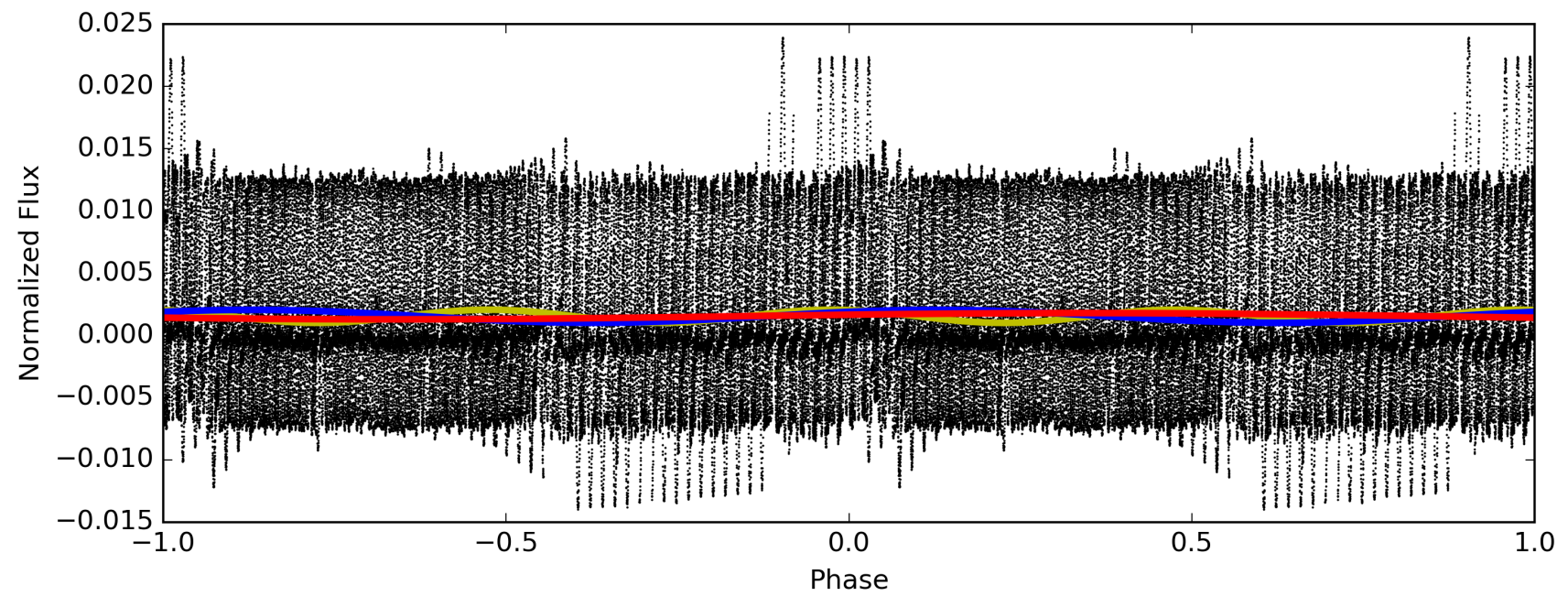
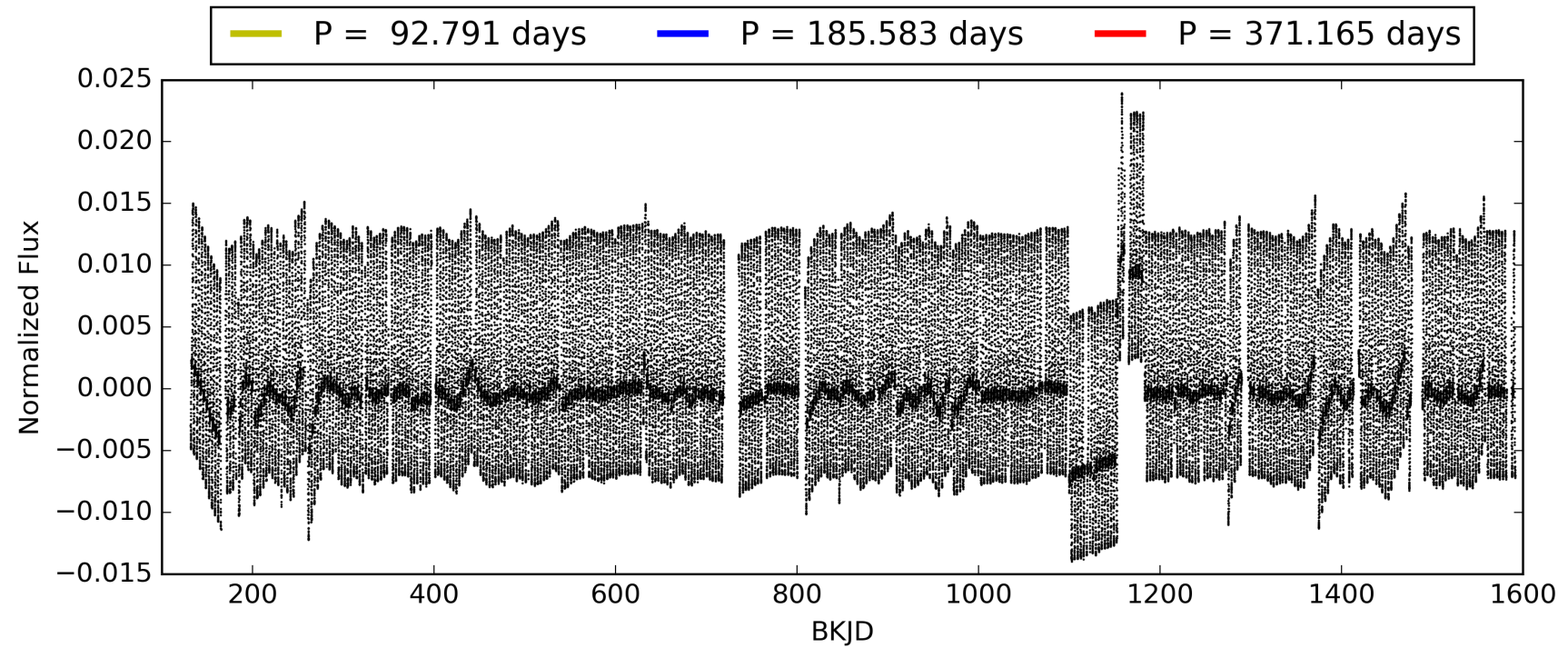
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:09:37 Z

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

TCE 008881883-04, PDC Light Curves

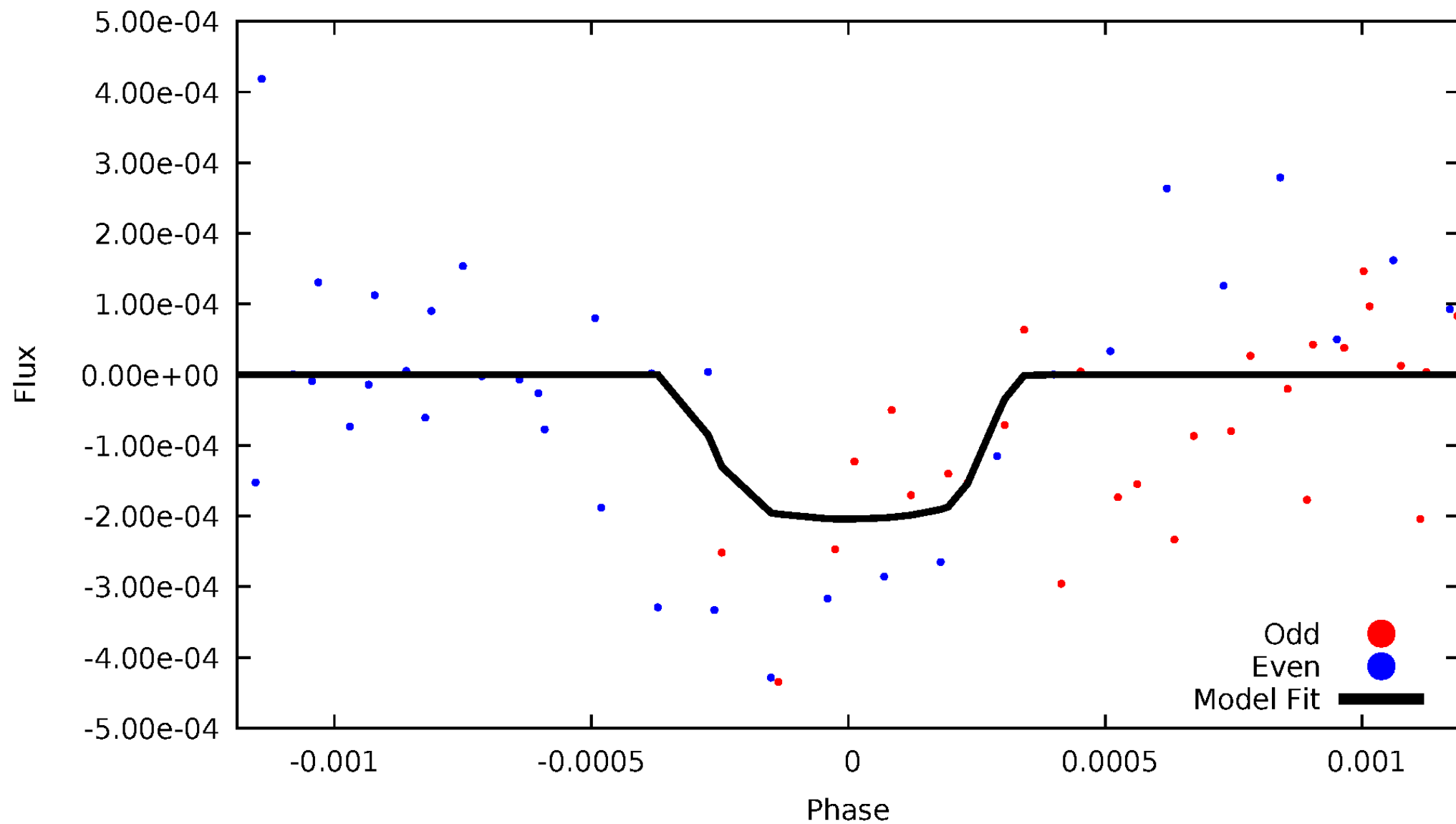


TCE 008881883-04



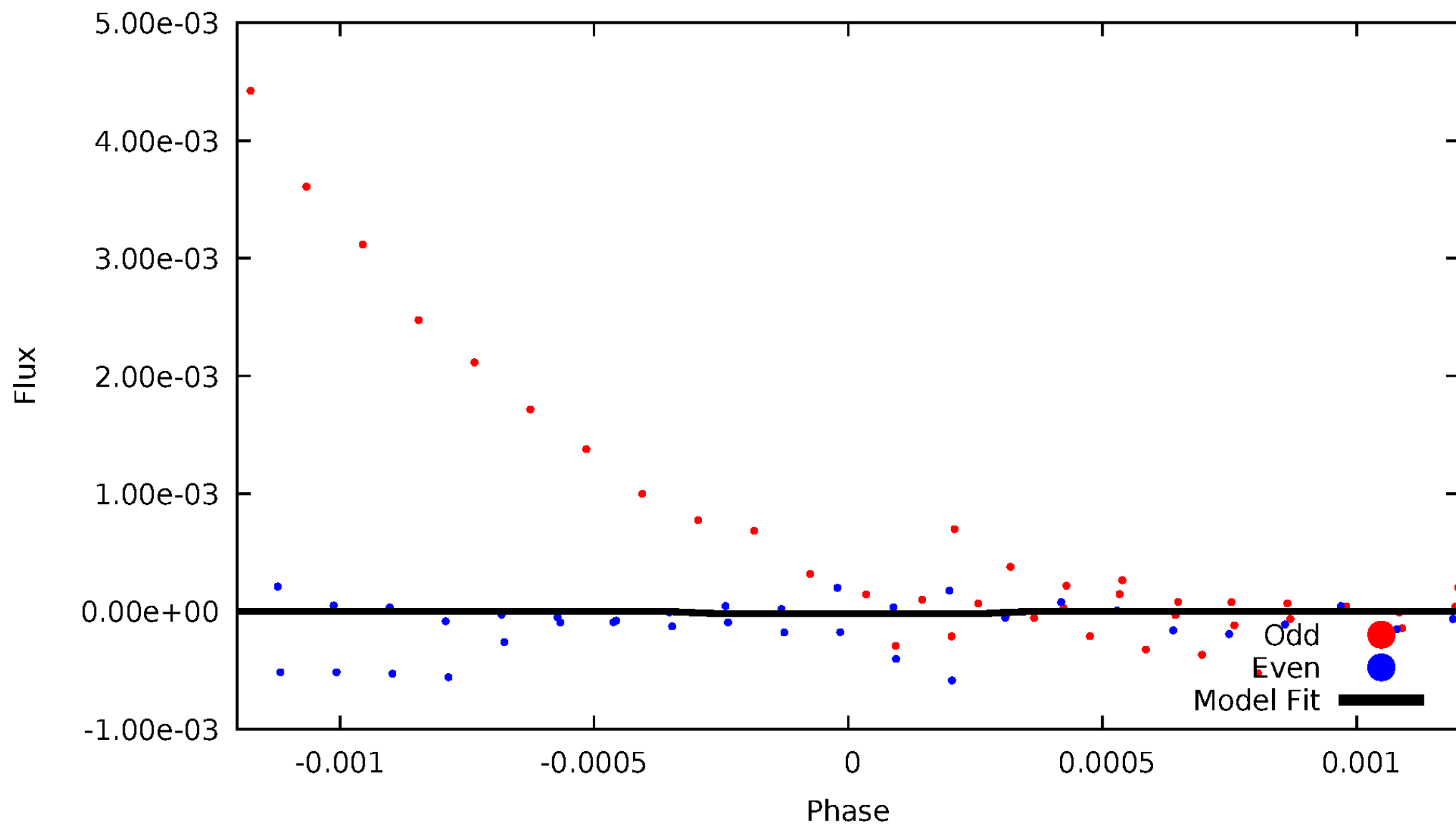
DV Odd/Even

TCE 008881883-04



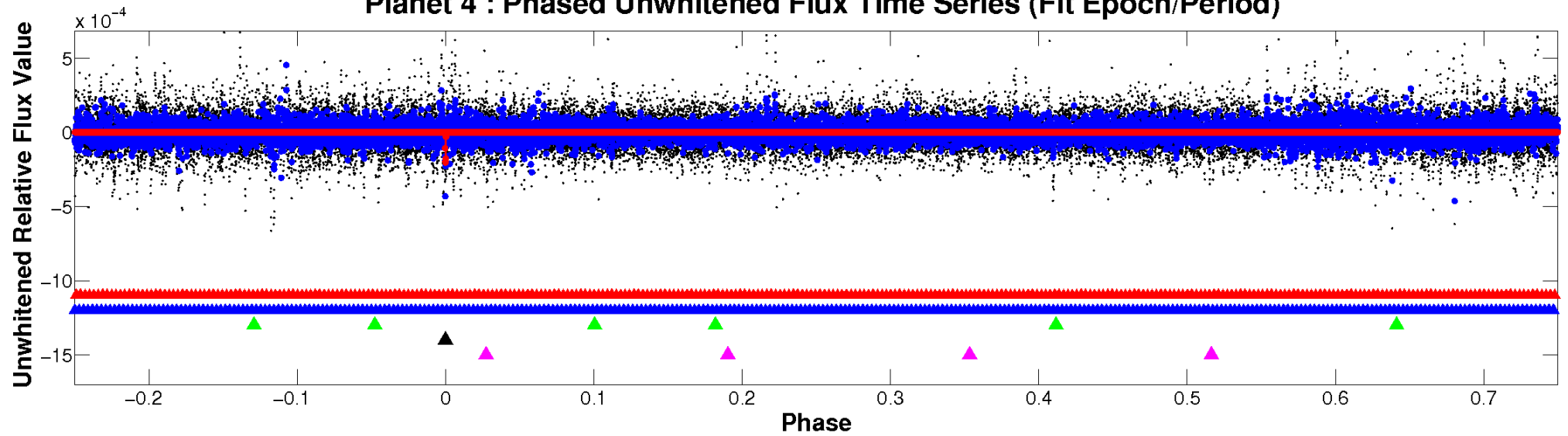
ALT Odd/Even

TCE 008881883-04

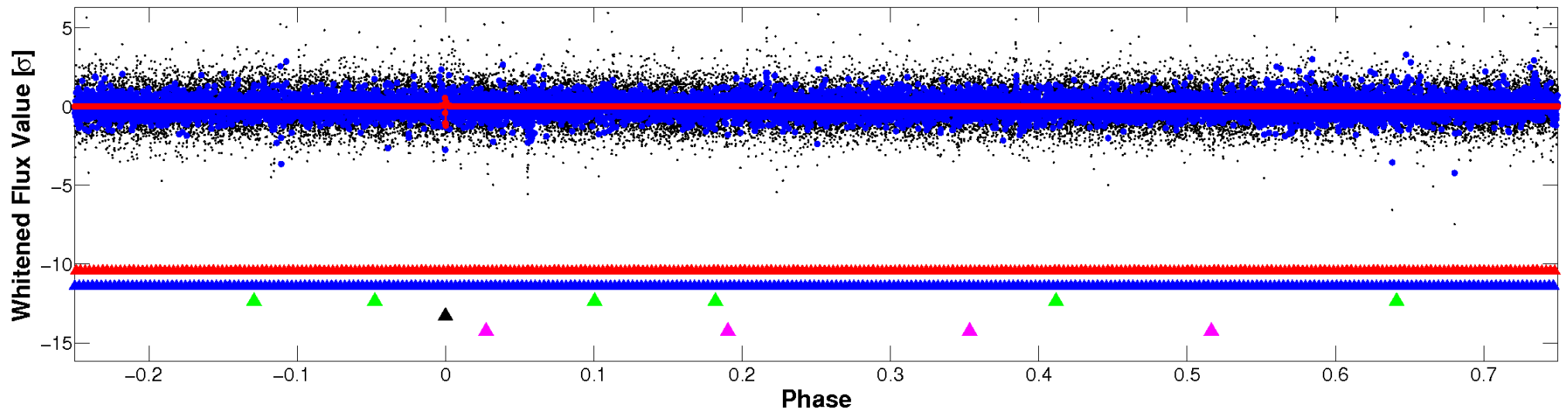


Non-Whitened Vs. Whitened Light Curve

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

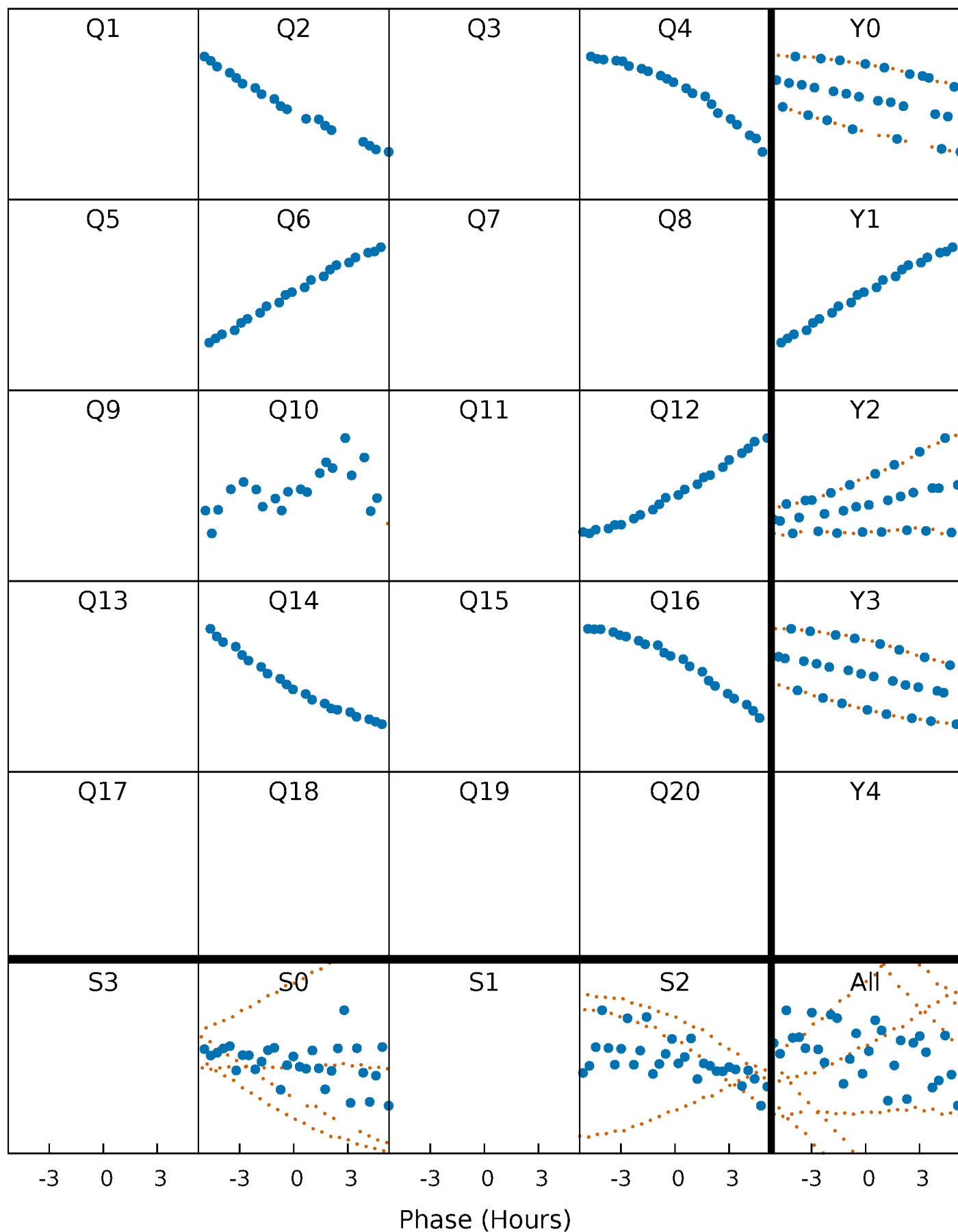


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



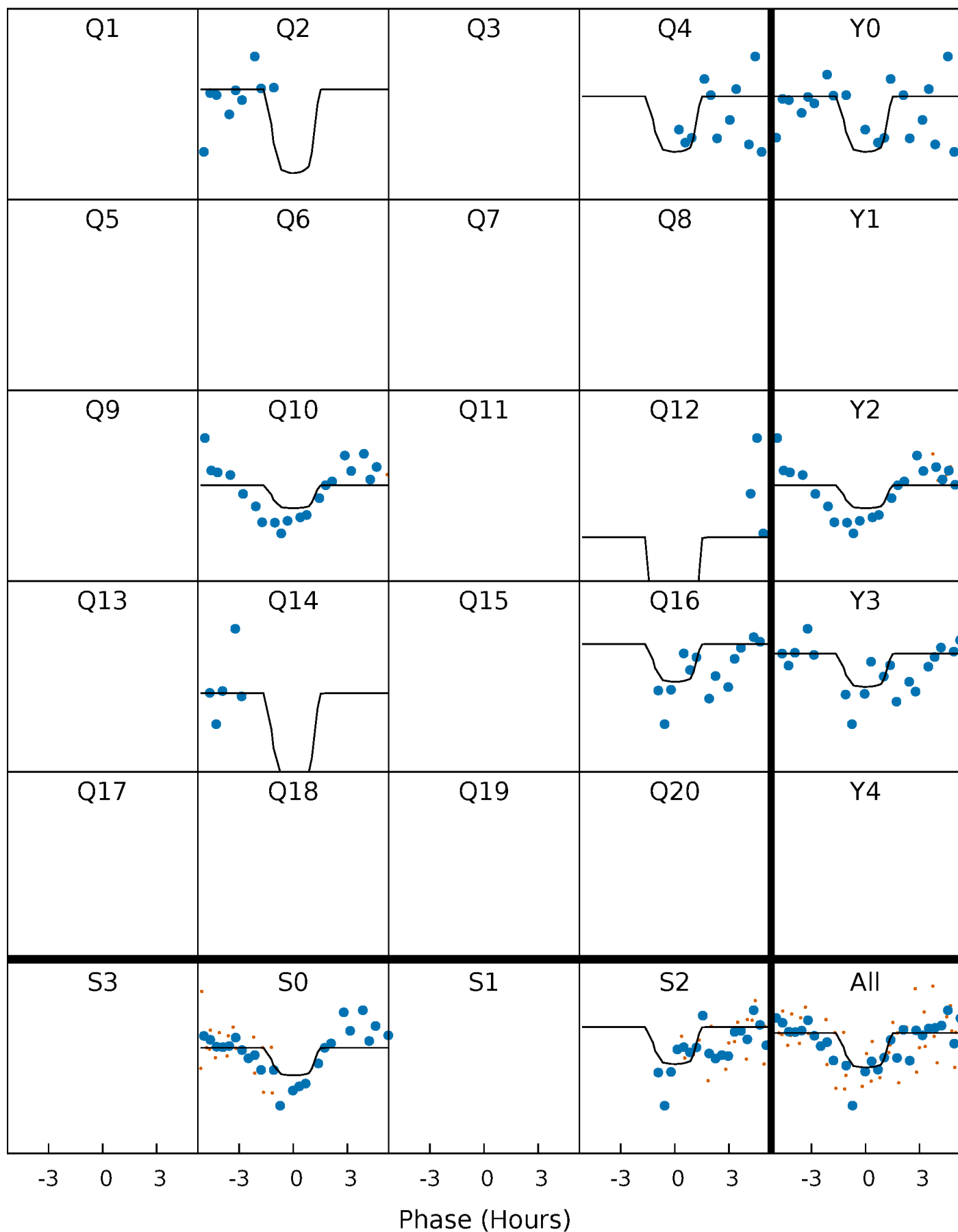
PDC Quarter-Phased Transit Curves

TCE 008881883-04 P=185.582504 Days $T_0=247.688557$ (BKJD)



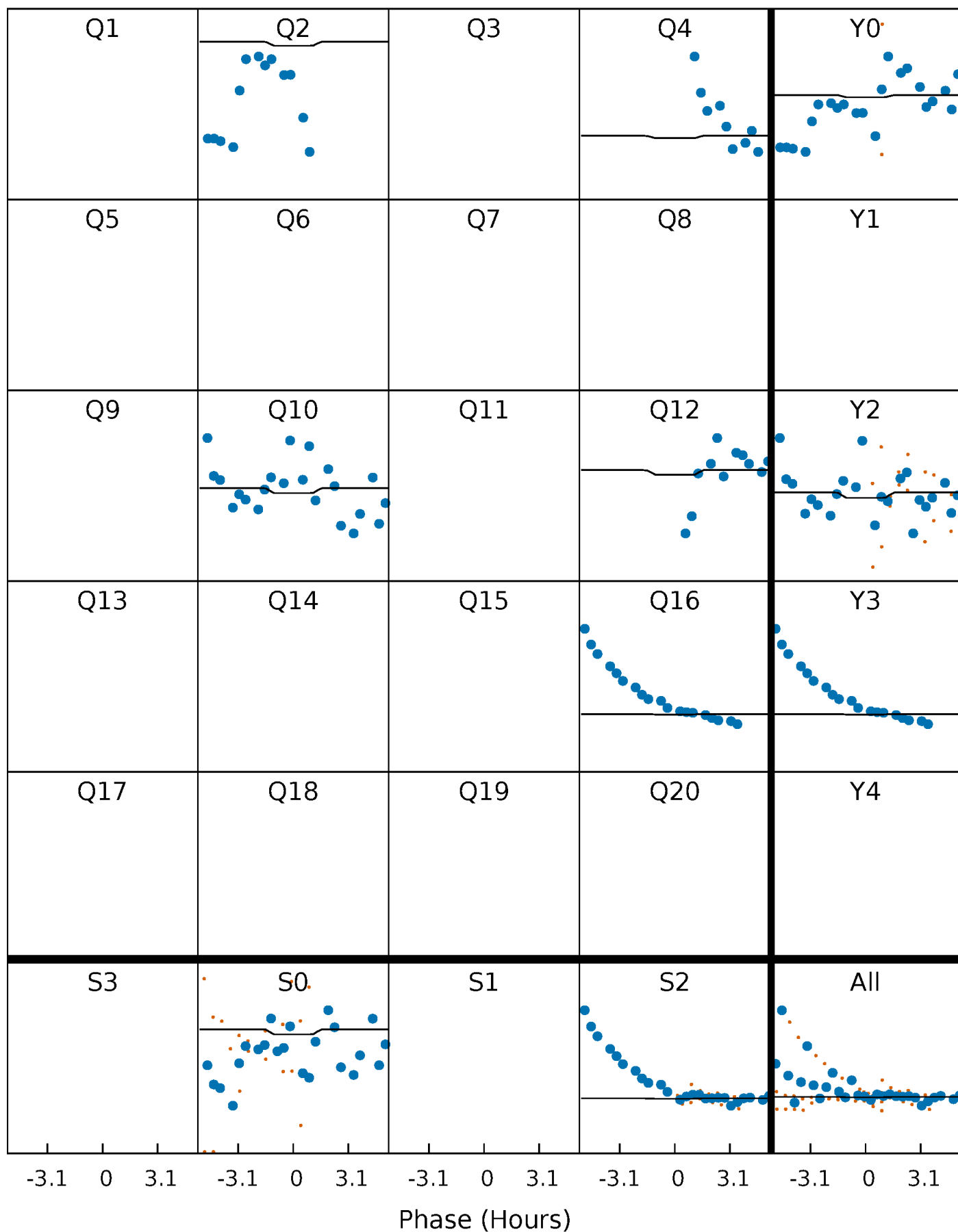
DV Quarter-Phased Transit Curves

TCE 008881883-04 $P=185.582504$ Days $T_0=247.688557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

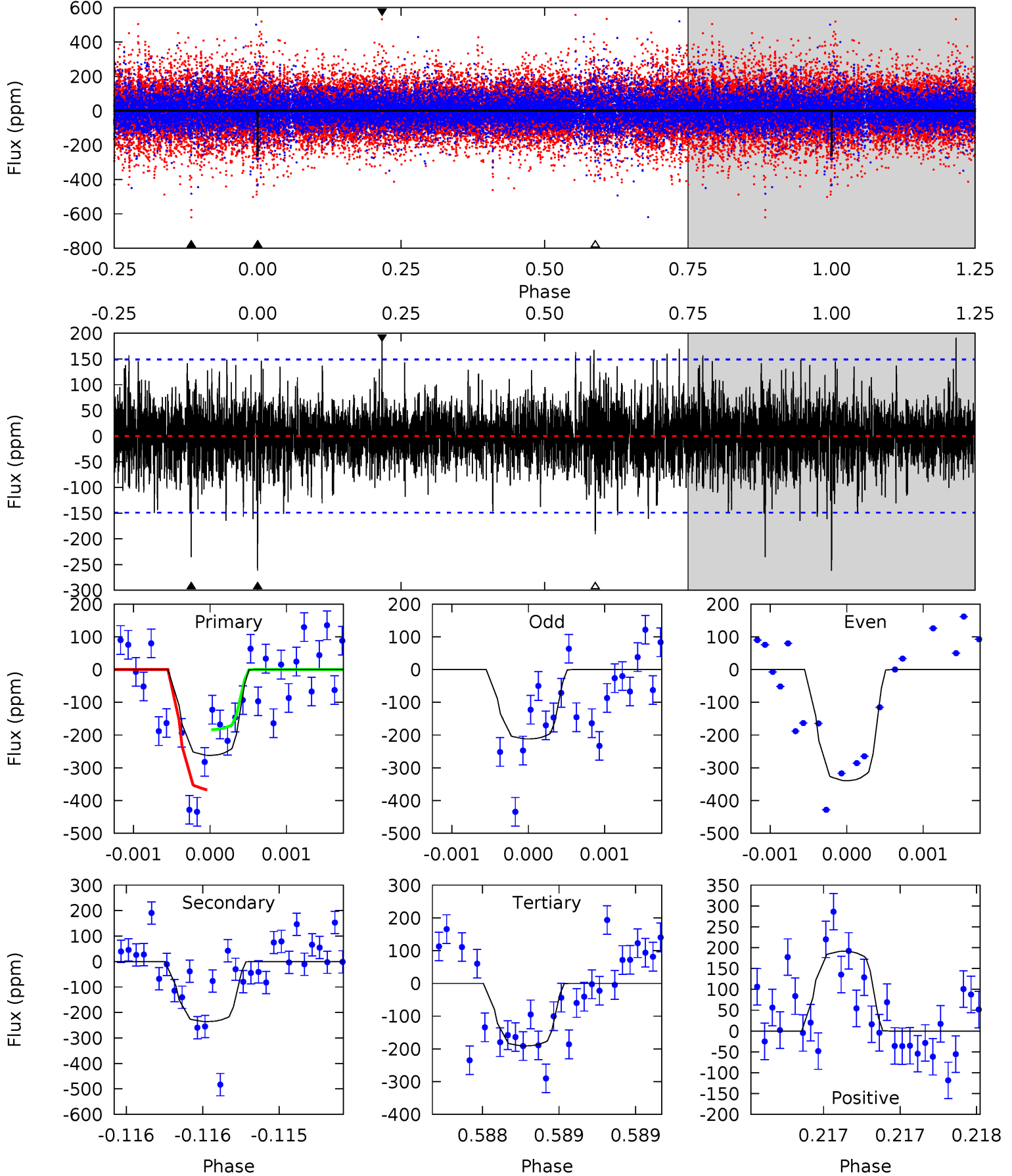
TCE 008881883-04 P=185.634394 Days $T_0=247.600085$ (BKJD)



DV Model-Shift Uniqueness Test

008881883-04, P = 185.582504 Days, E = 62.106053 Days

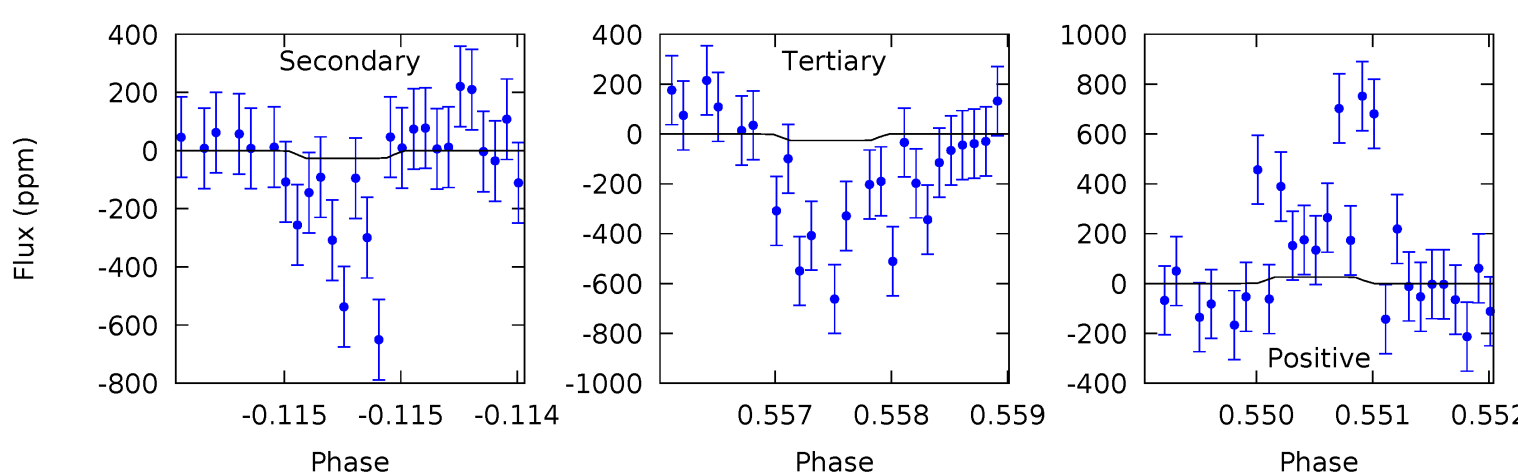
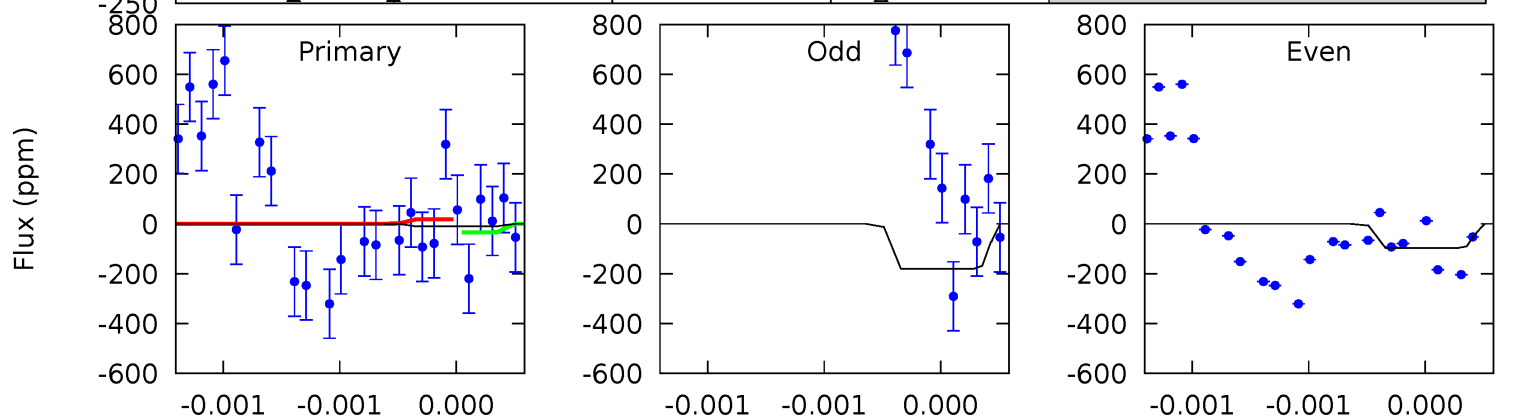
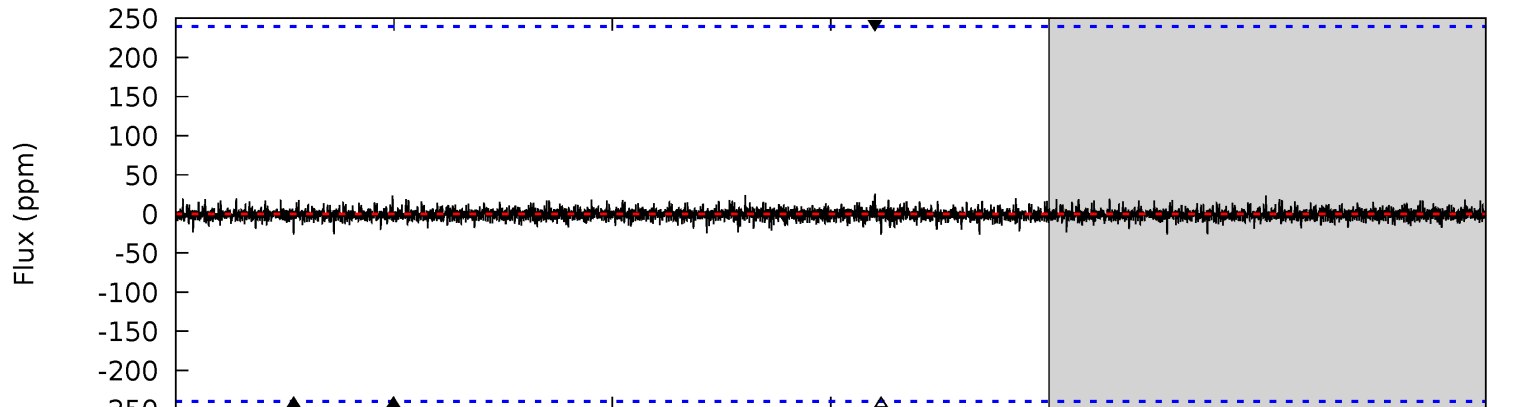
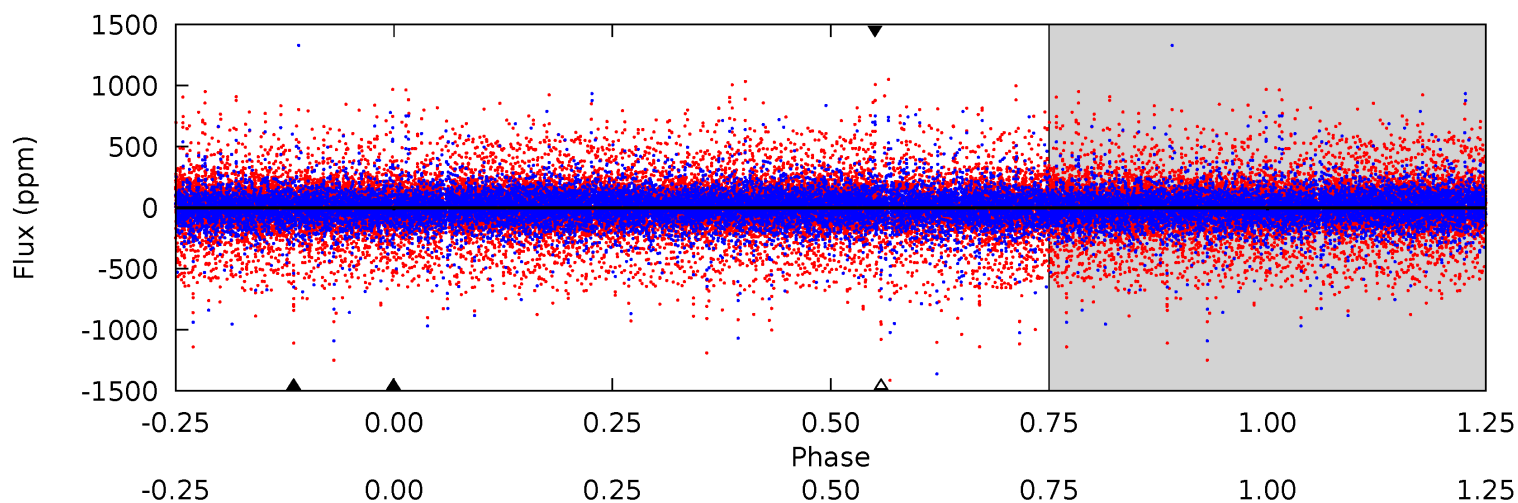
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.72	8.74	7.08	7.10	5.52	3.40	1.59	2.64	2.62	1.66	1.64	2.34	1.04	0.42	3.23



Alt Model-Shift Uniqueness Test

008881883-04, P = 185.634394 Days, E = 61.965691 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.24	0.61	0.61	0.59	5.51	3.39	0.13	-0.37	-0.35	0.00	0.02	0.87	1.45	0.49	0.19



Stellar Parameters For KIC 008881883

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	10949^{+221}_{-516}	$3.650^{+0.416}_{-0.073}$	$0.070^{+0.150}_{-0.550}$	$4.465^{+0.509}_{-1.909}$	$3.249^{+0.088}_{-0.791}$	$0.051^{+0.193}_{-0.012}$
	+2%/-5%	+11%/-2%	+214%/-786%	+11%/-43%	+3%/-24%	+376%/-24%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008881883-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-236 ± 27	$7.25^{+5.40}_{-4.21}$	1414^{+94}_{-165}	9926^{+11277}_{-2789}	2088^{+9701}_{-1398}
Alt.	-27 ± 43	$4.34^{+4.44}_{-2.99}$	1405^{+93}_{-163}	6337^{+8887}_{-12090}	426^{+5306}_{-767}

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

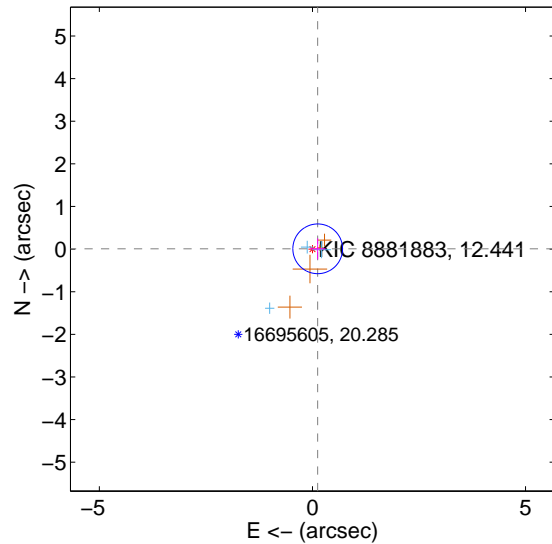
Supplemental centroid analysis for 008881883-04. Kepler magnitude: 12.44. Transit SNR 4.03

There are 3 quarters with good PRF difference image offsets

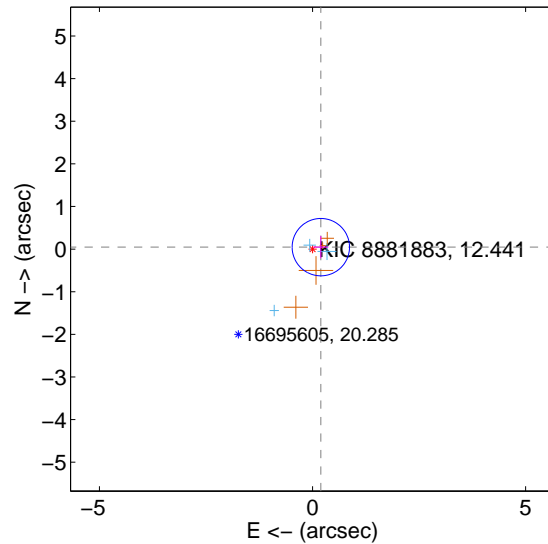
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.124 ± 0.194	0.64	-0.123 ± 0.184	0.007 ± 0.246
PRF-fit source offset from KIC position	0.200 ± 0.224	0.89	-0.195 ± 0.178	0.046 ± 0.263
photometric centroid source offset	1.09 ± 1.21	0.90	-0.65 ± 1.22	-0.88 ± 1.21

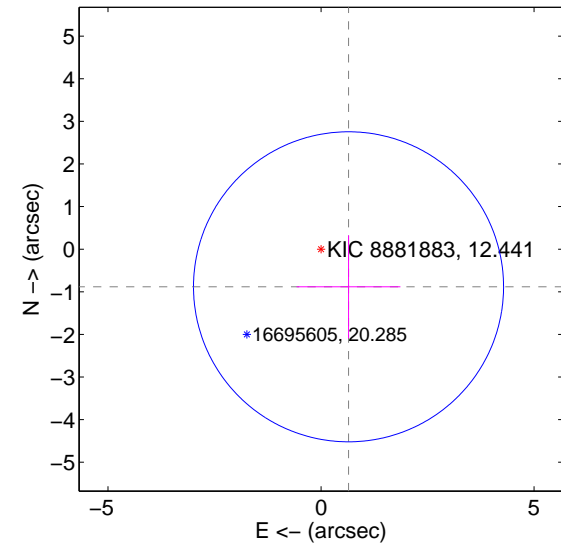
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

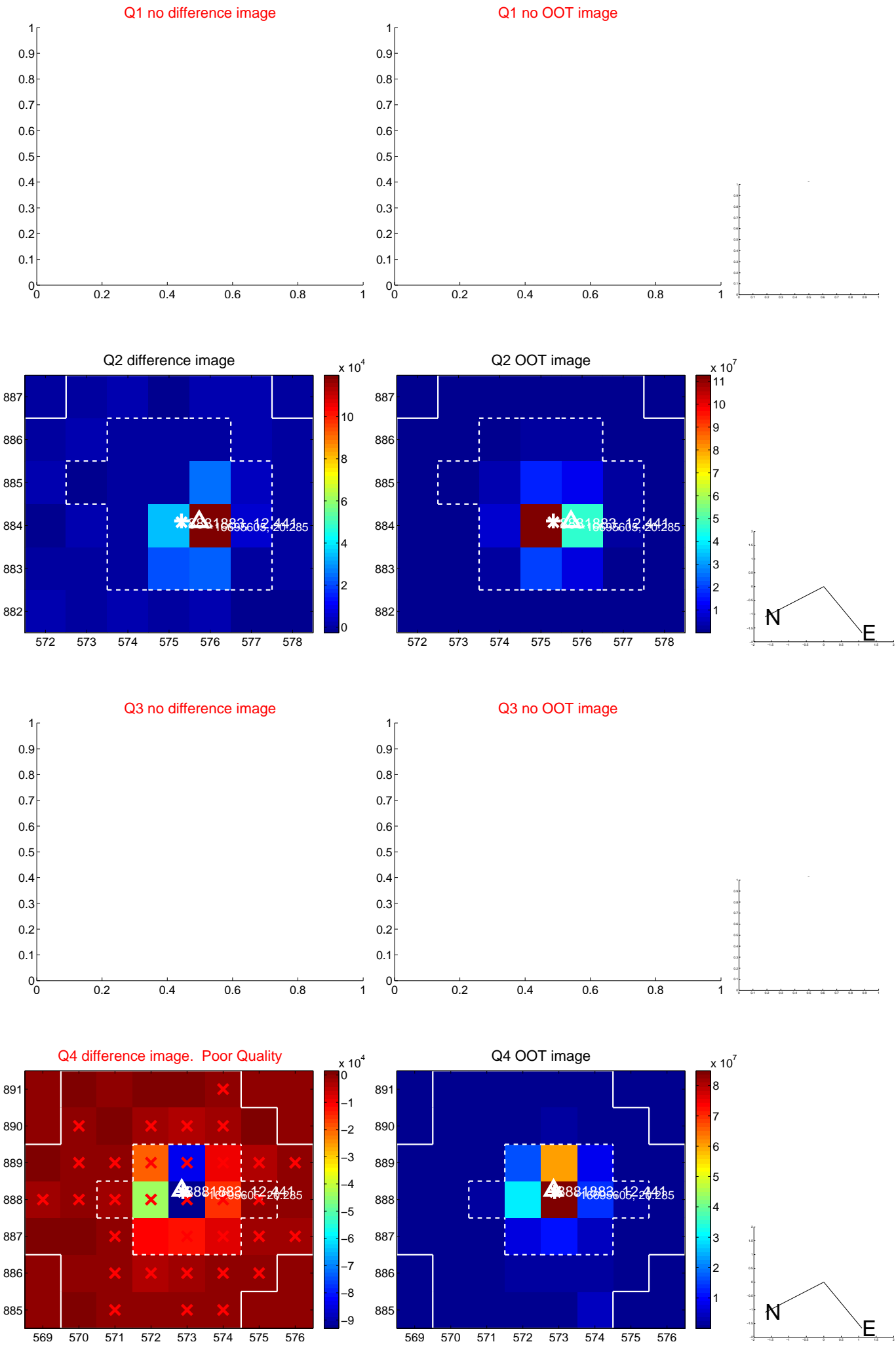


offset from photometric centroids

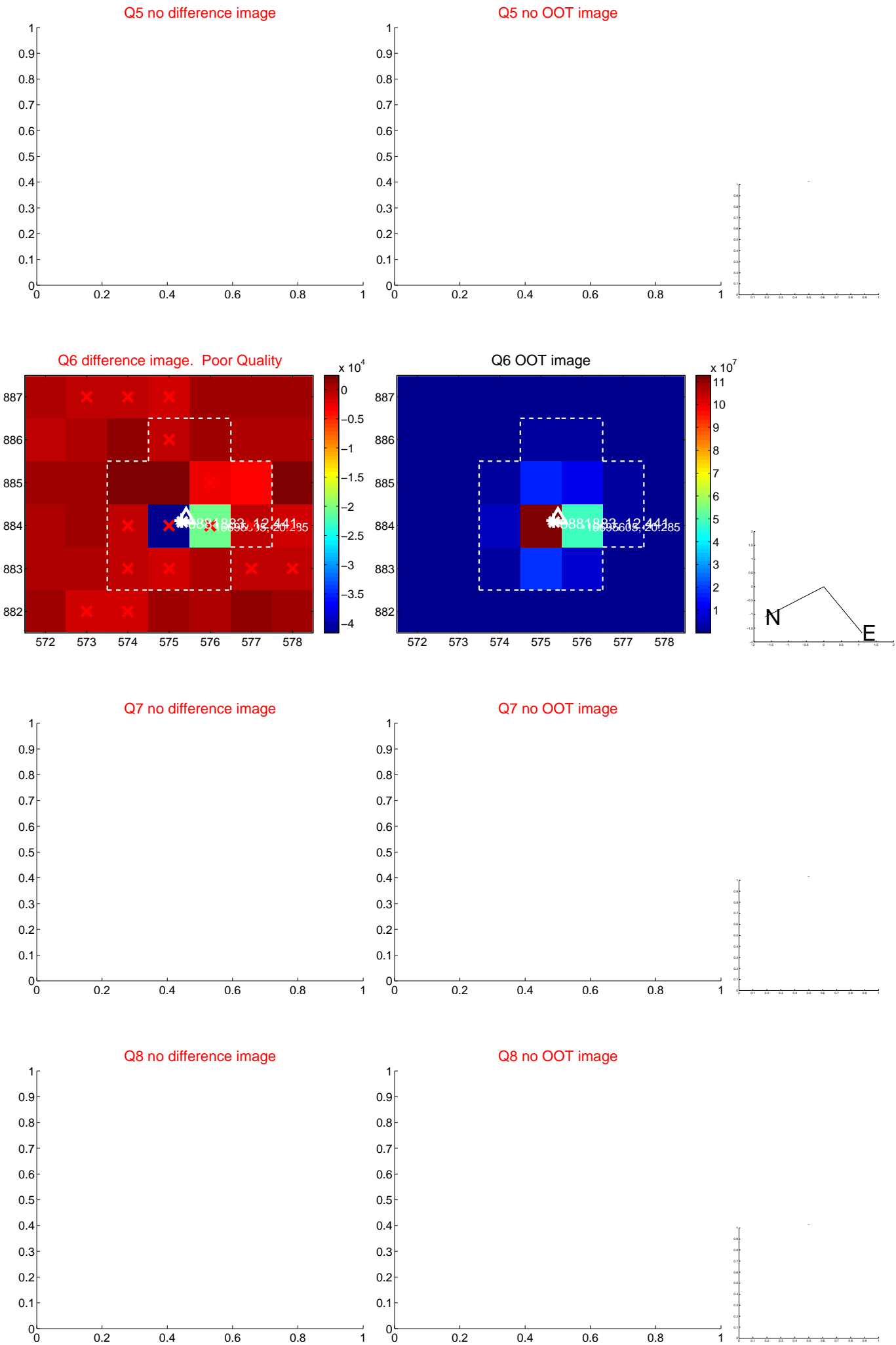


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

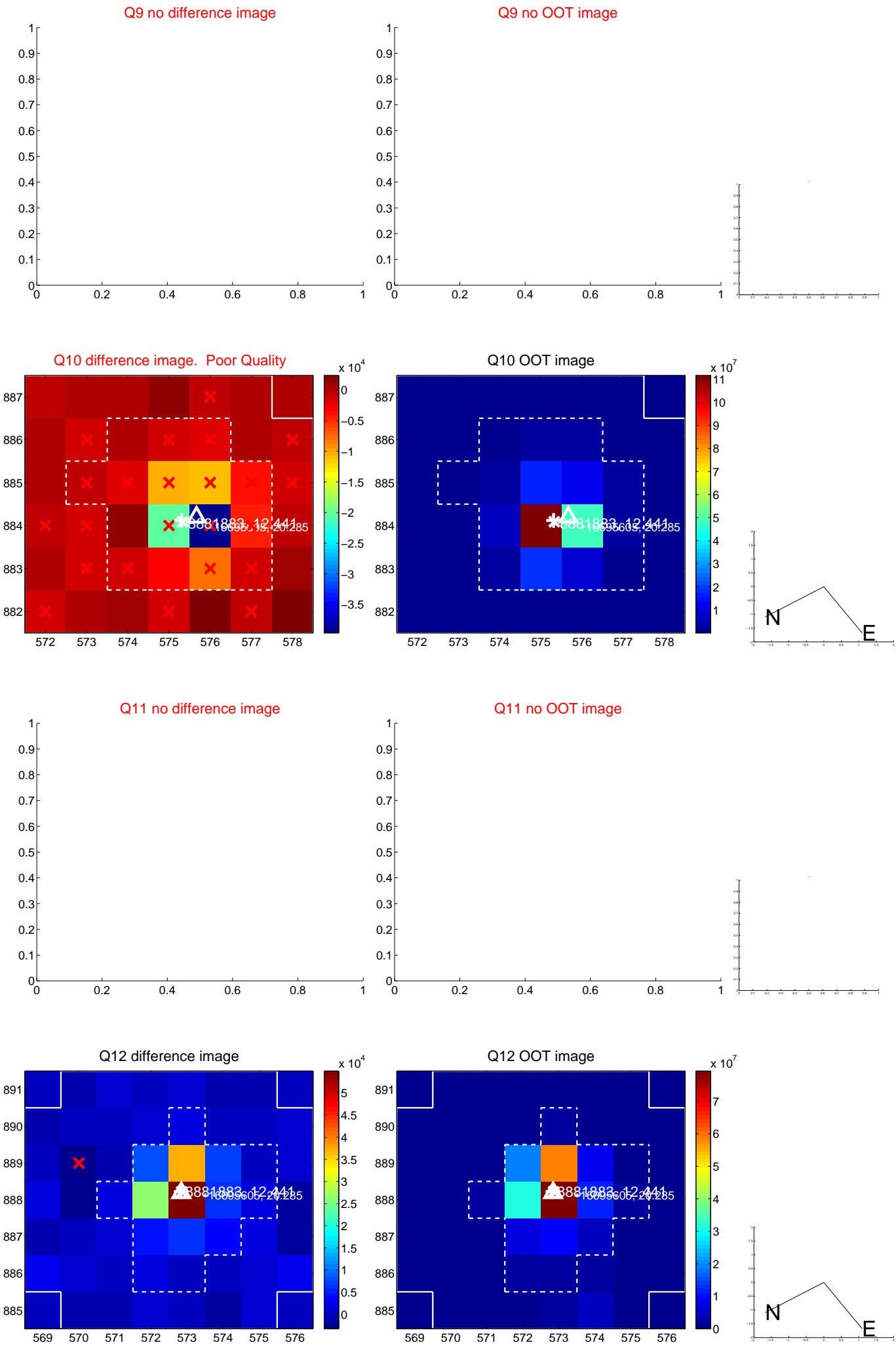
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



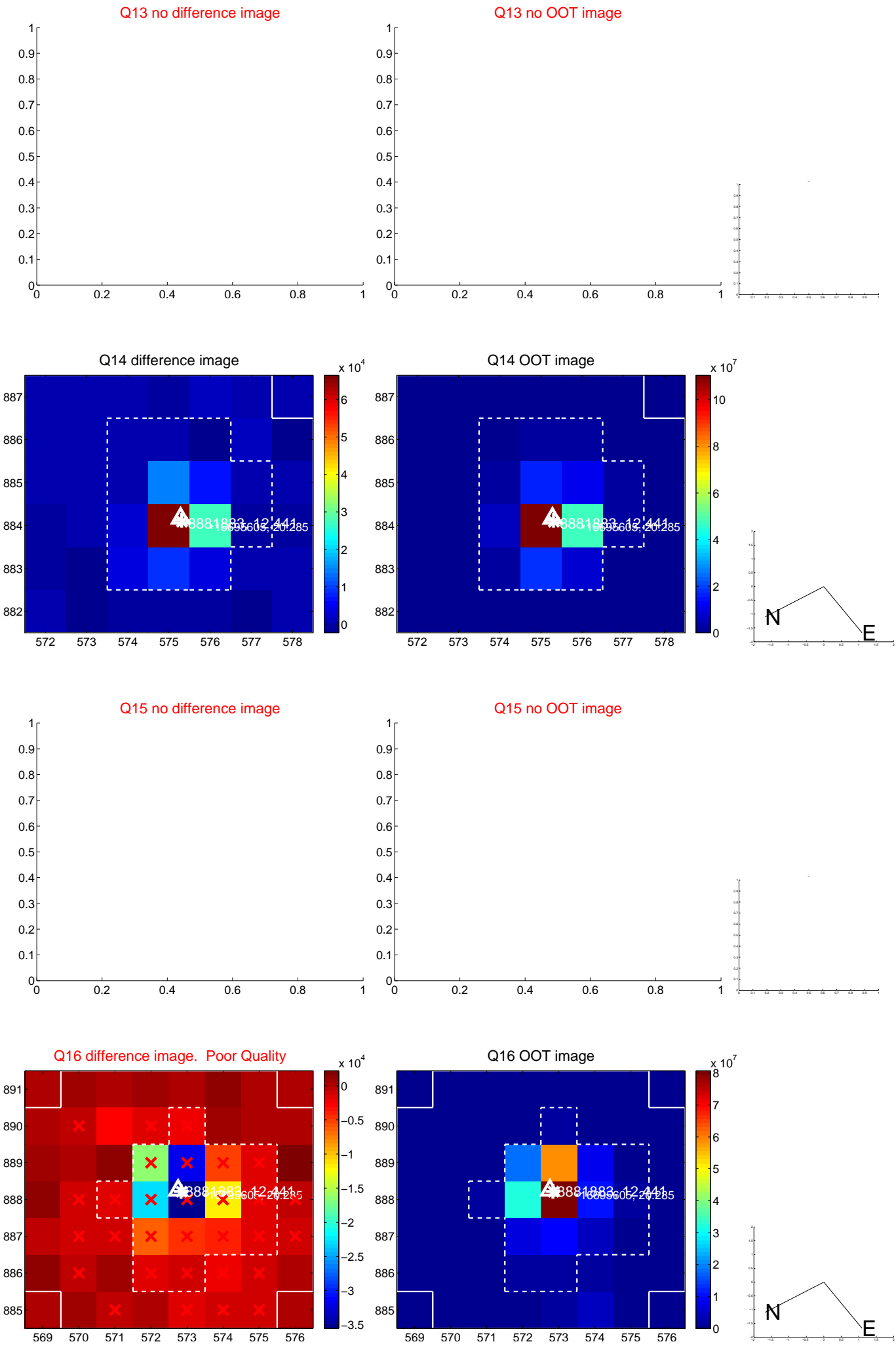
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



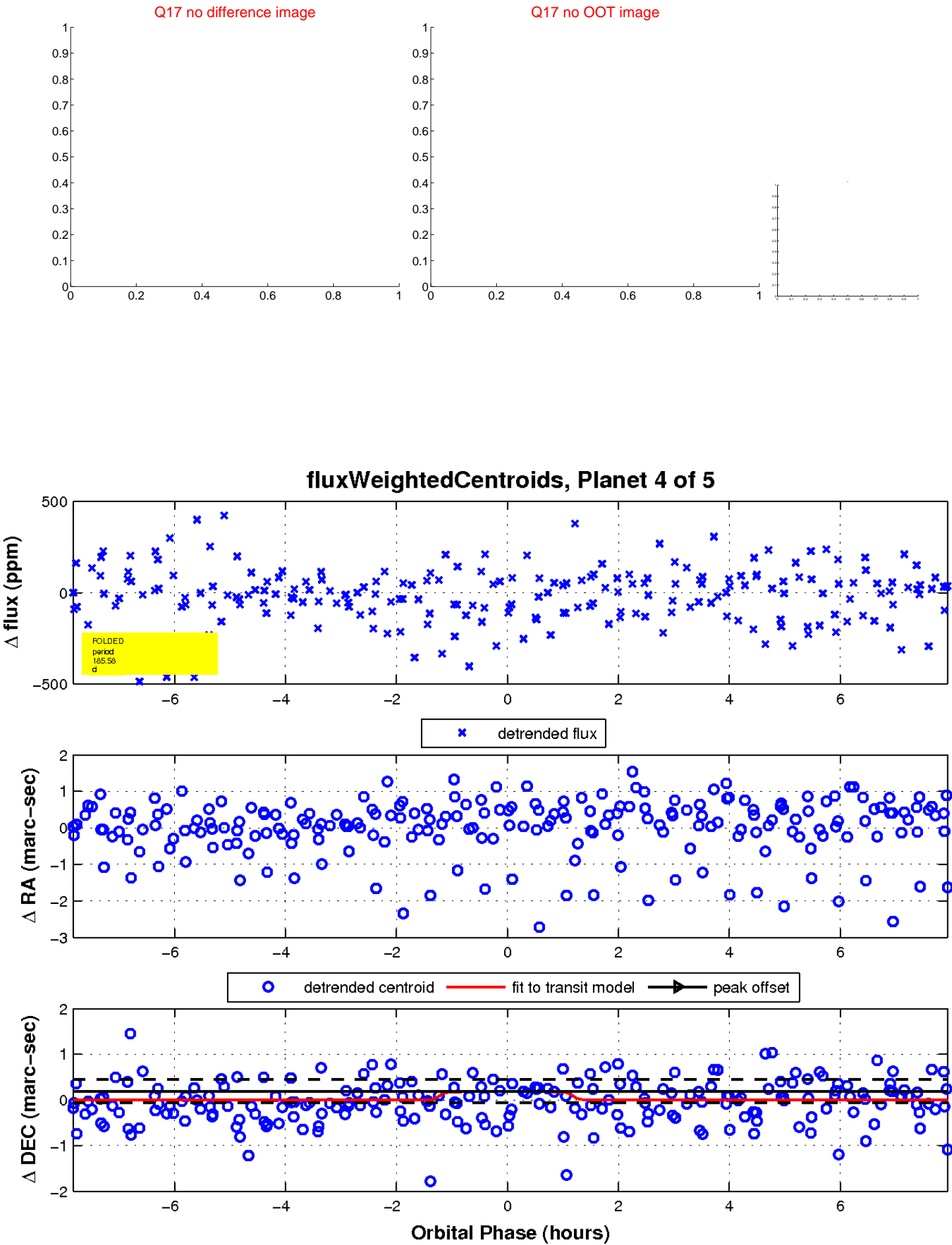
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

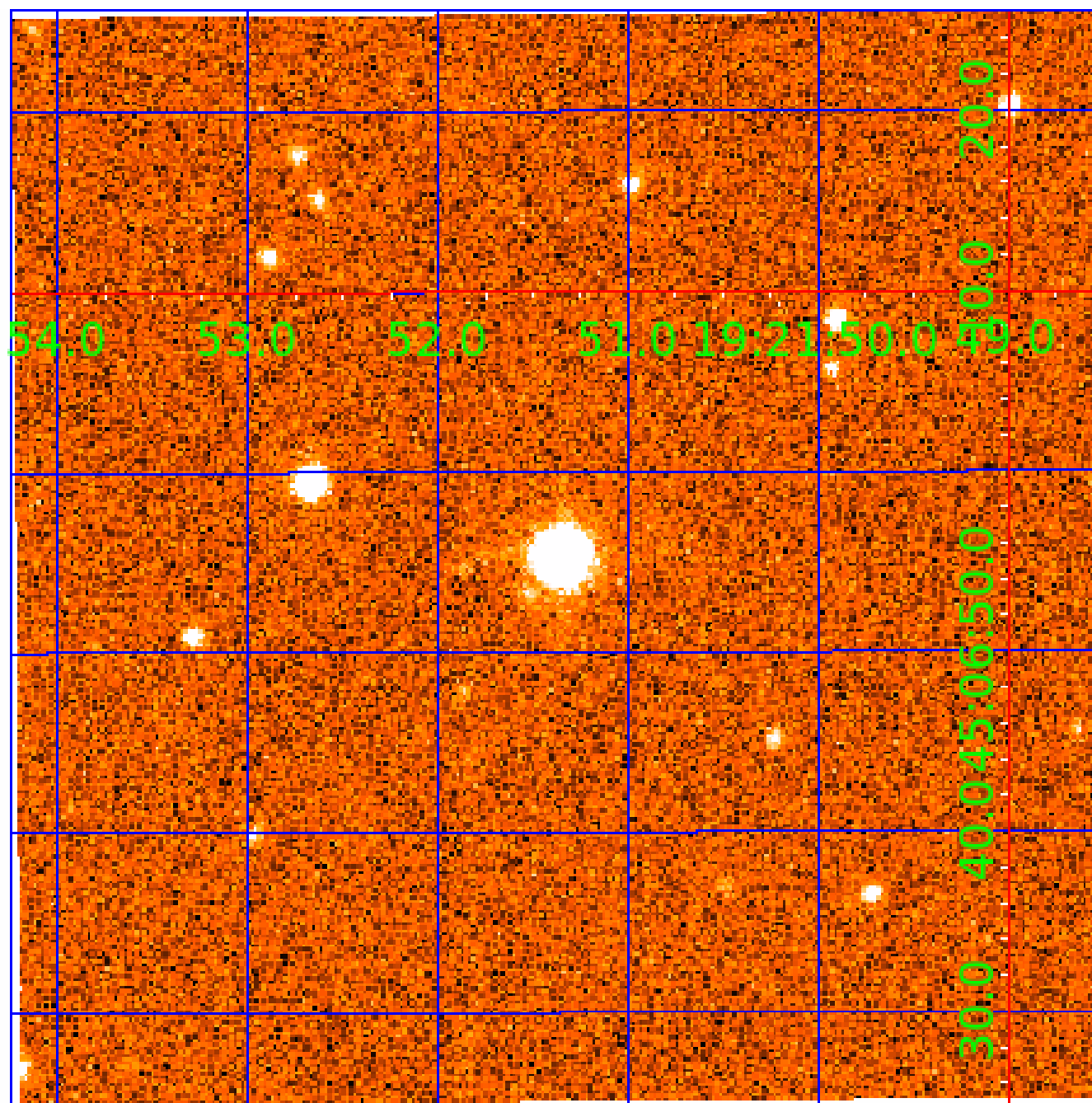


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008881883

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})
008881883-01	OBS	No	3.323657	131.718506	35.6	6.269	13.1	11.6	4.46	10949	3.49	61581.68
008881883-02	OBS	No	3.323760	133.734846	75.6	6.000	9.1	-1.0	4.46	10949	4.00	61579.13
008881883-03	OBS	No	228.198252	238.850933	412.2	2.685	8.4	8.3	4.46	10949	10.48	219.04
008881883-04	OBS	No	185.582504	247.688557	204.1	2.648	7.8	4.0	4.46	10949	7.35	288.55
008881883-05	OBS	No	401.413898	252.776667	114.1	0.860	7.7	1.9	4.46	10949	5.50	103.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008881883-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV
008881883-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
008881883-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008881883-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008881883-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—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.

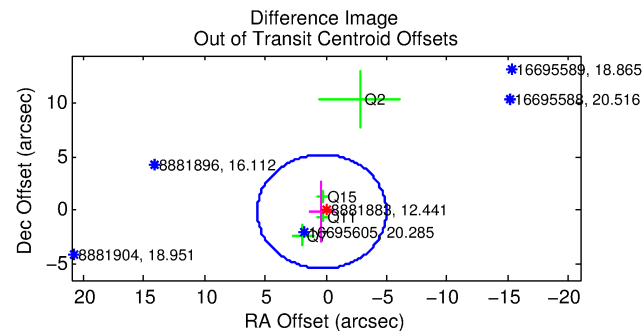
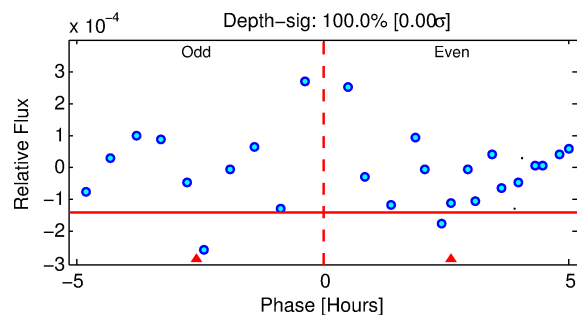
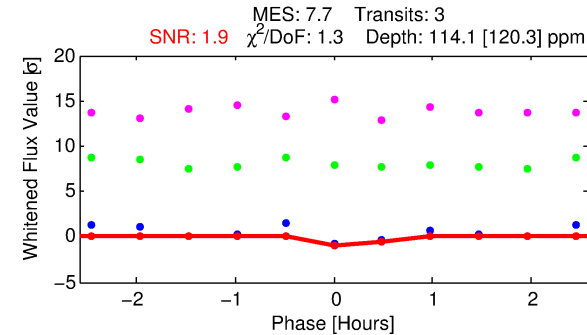
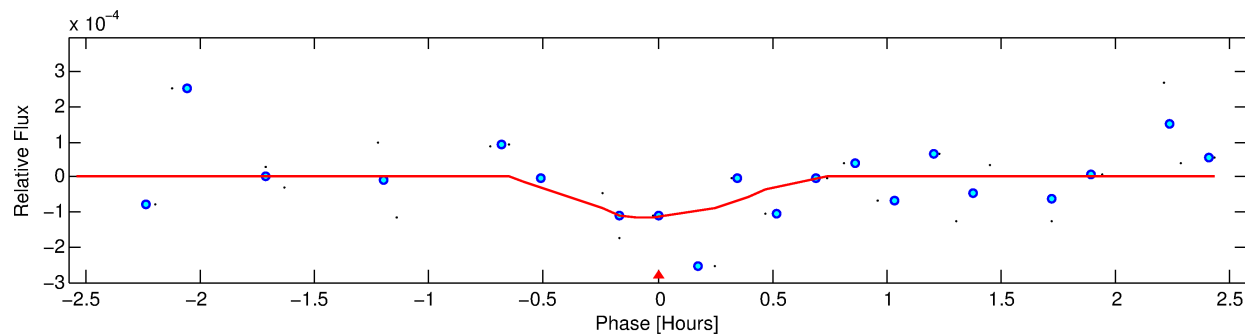
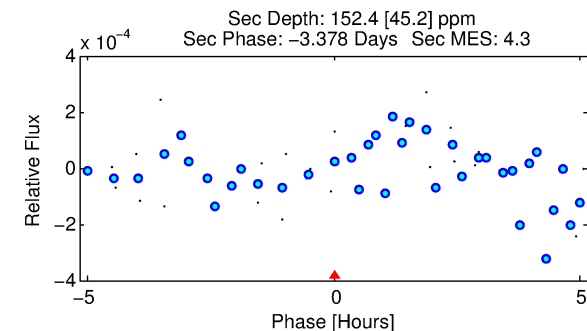
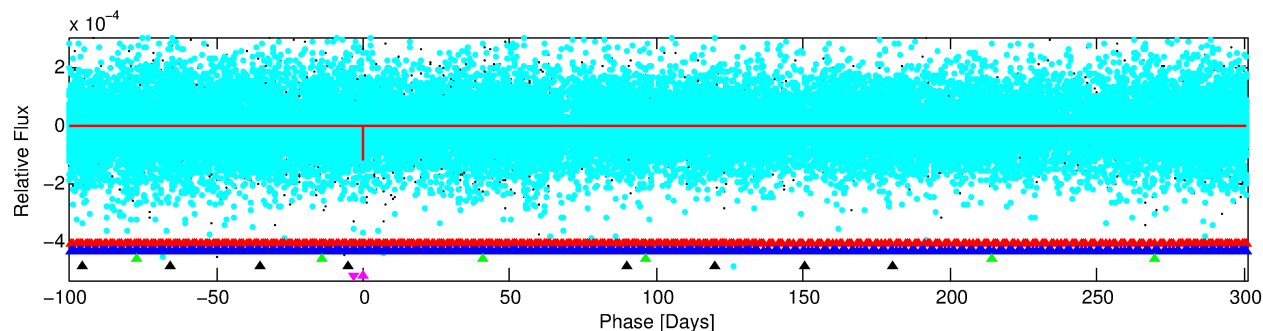
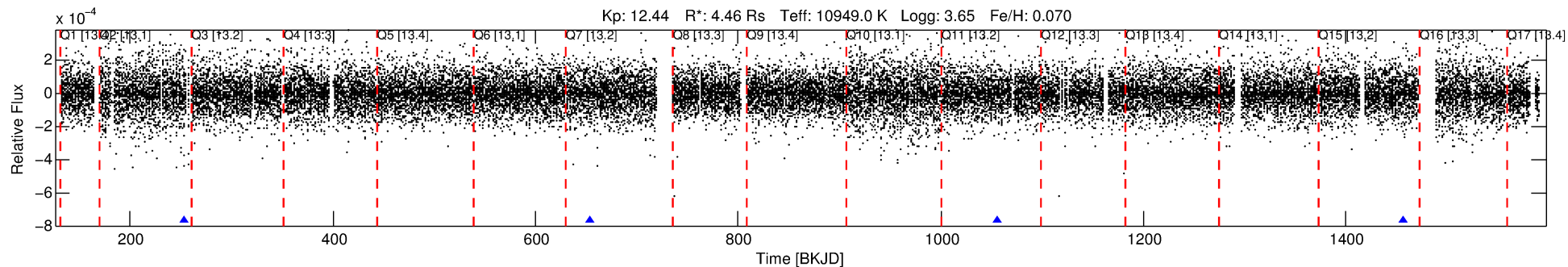
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008881883-05

No Significant Match Found

DV One-Page Summary

KIC: 8881883 Candidate: 5 of 5 Period: 401.414 d



DV Fit Results:

Period = 401.41390 [0.00964] d
Epoch = 252.7767 [0.0162] BKJD
Rp/R* = 0.0113 [0.0204]
a/R* = 1623.52 [21111.70]
b = 0.90 [2.79]
Seff = 103.15 [74.71]
Teq = 813 [147] K
Rp = 5.50 [10.23] Re
a = 1.5775 [0.6752] AU
Ag = 6896.21 [25515.46] [0.27σ]
Teff = 11450 [10414] K [1.02σ]

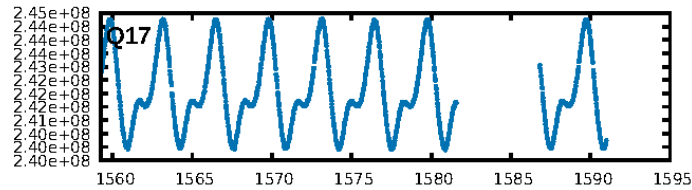
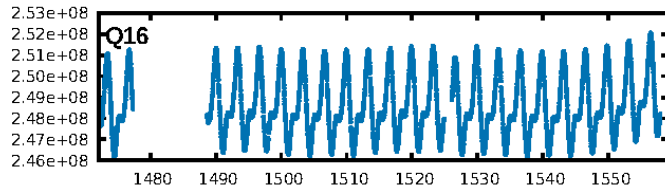
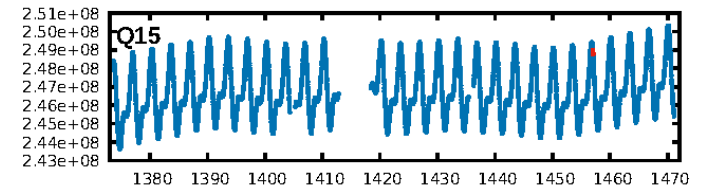
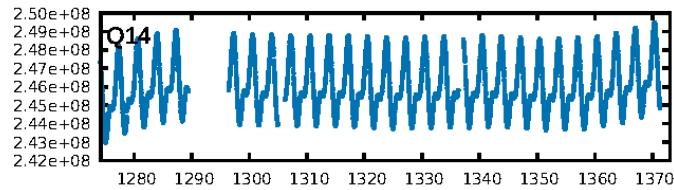
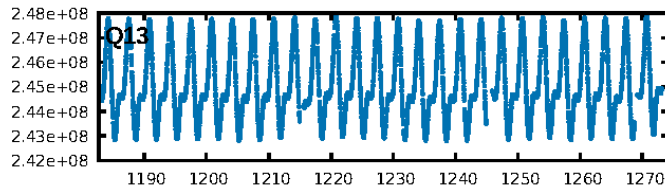
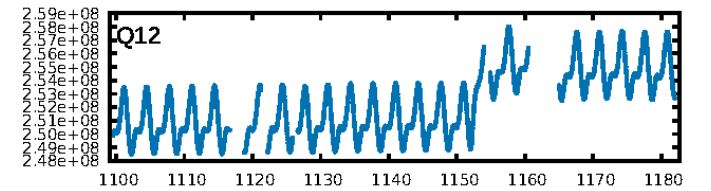
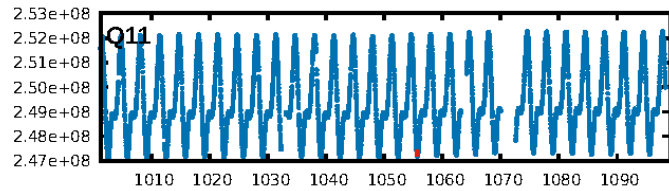
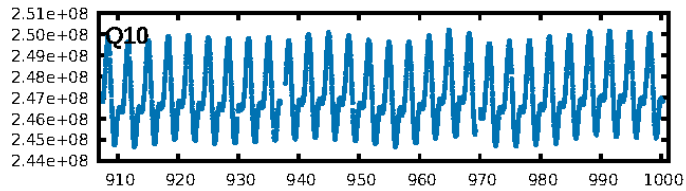
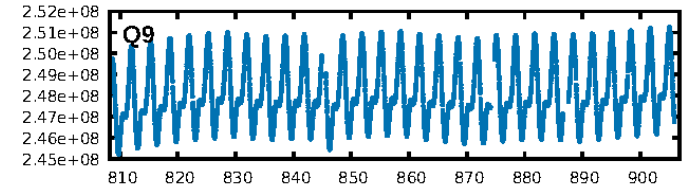
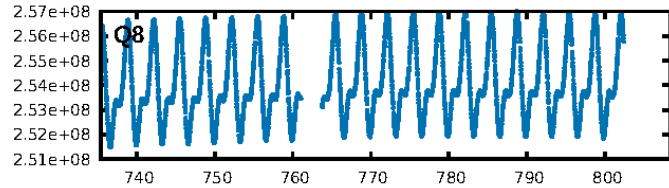
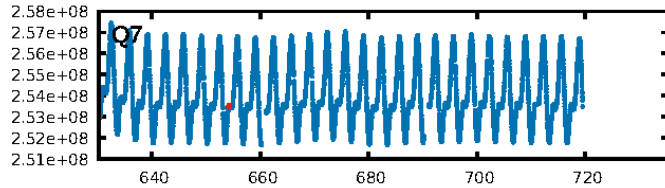
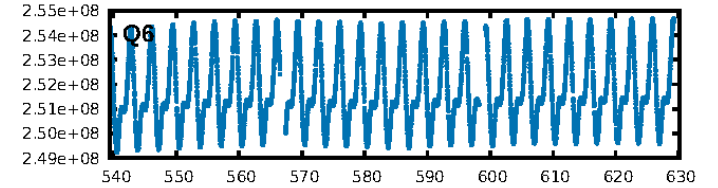
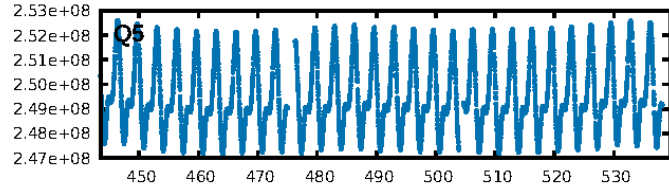
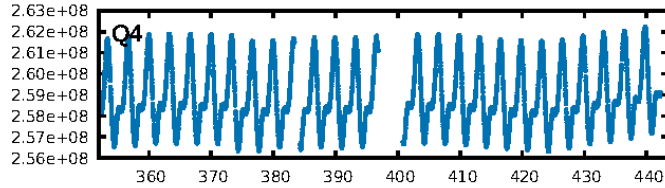
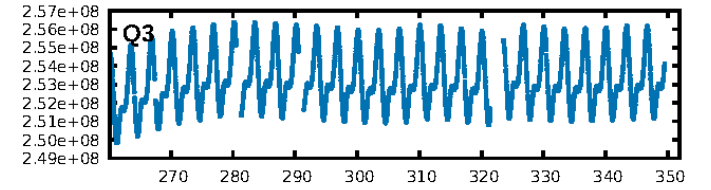
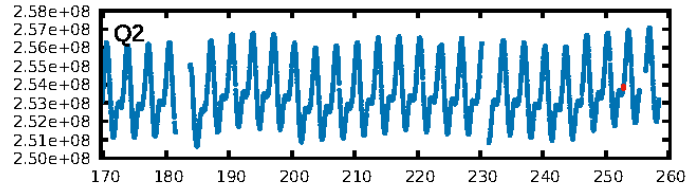
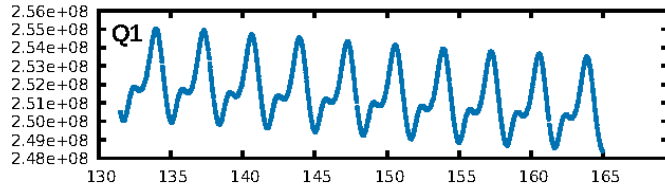
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1474.42σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.0%
ModelChiSquareGof-sig: 95.8%
Bootstrap-pfa: 4.21e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.5434
Centroid-sig: N/A
Centroid-so: 2.944 arcsec [0.55σ]
OotOffset-rm: 0.350 arcsec [0.20σ]
KicOffset-rm: 0.369 arcsec [0.27σ]
OotOffset-st: 1/3/0/0 [4]
KicOffset-st: 1/3/0/0 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.50 [2/4]

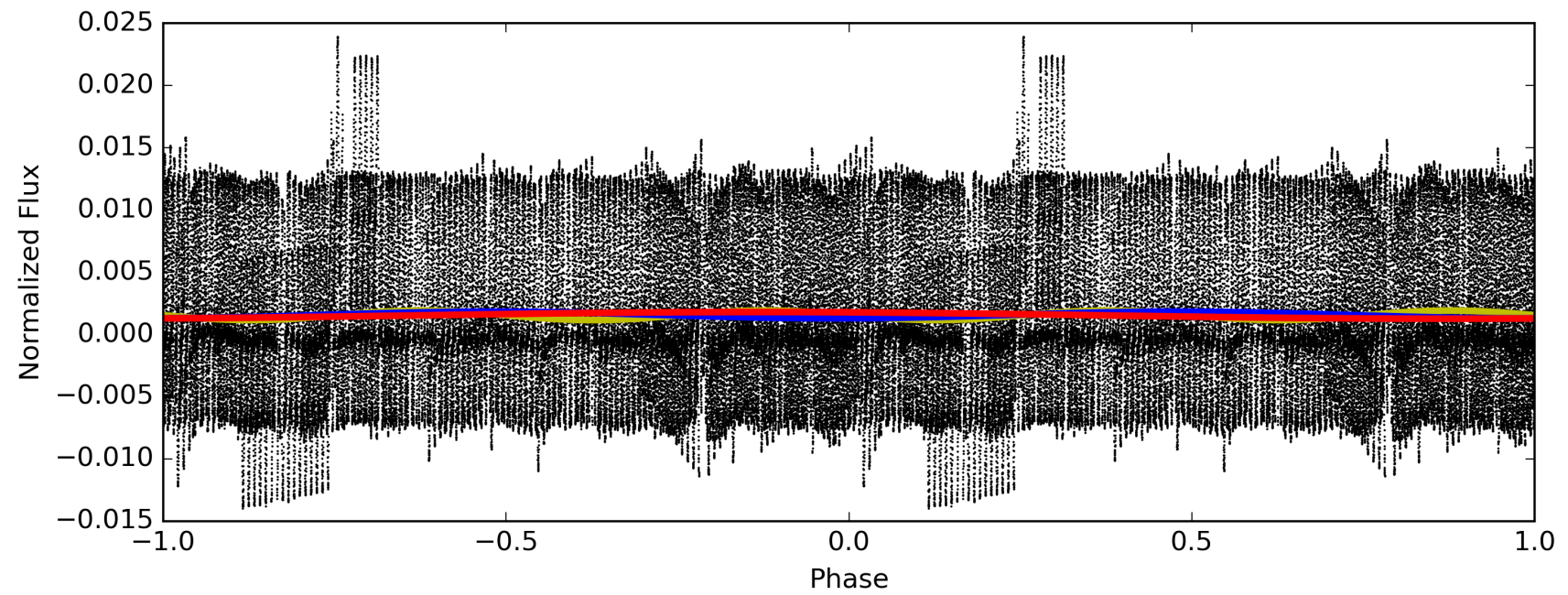
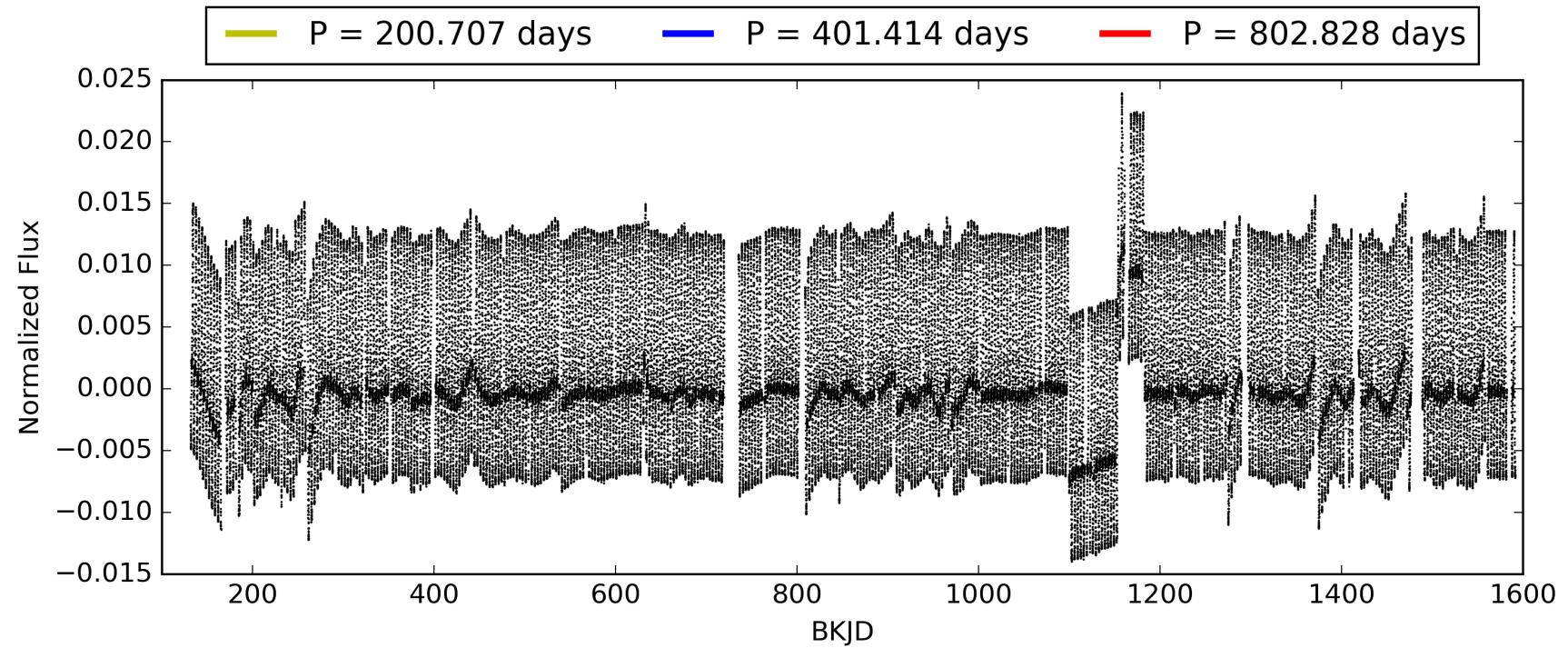
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:10:07 Z

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

TCE 008881883-05, PDC Light Curves

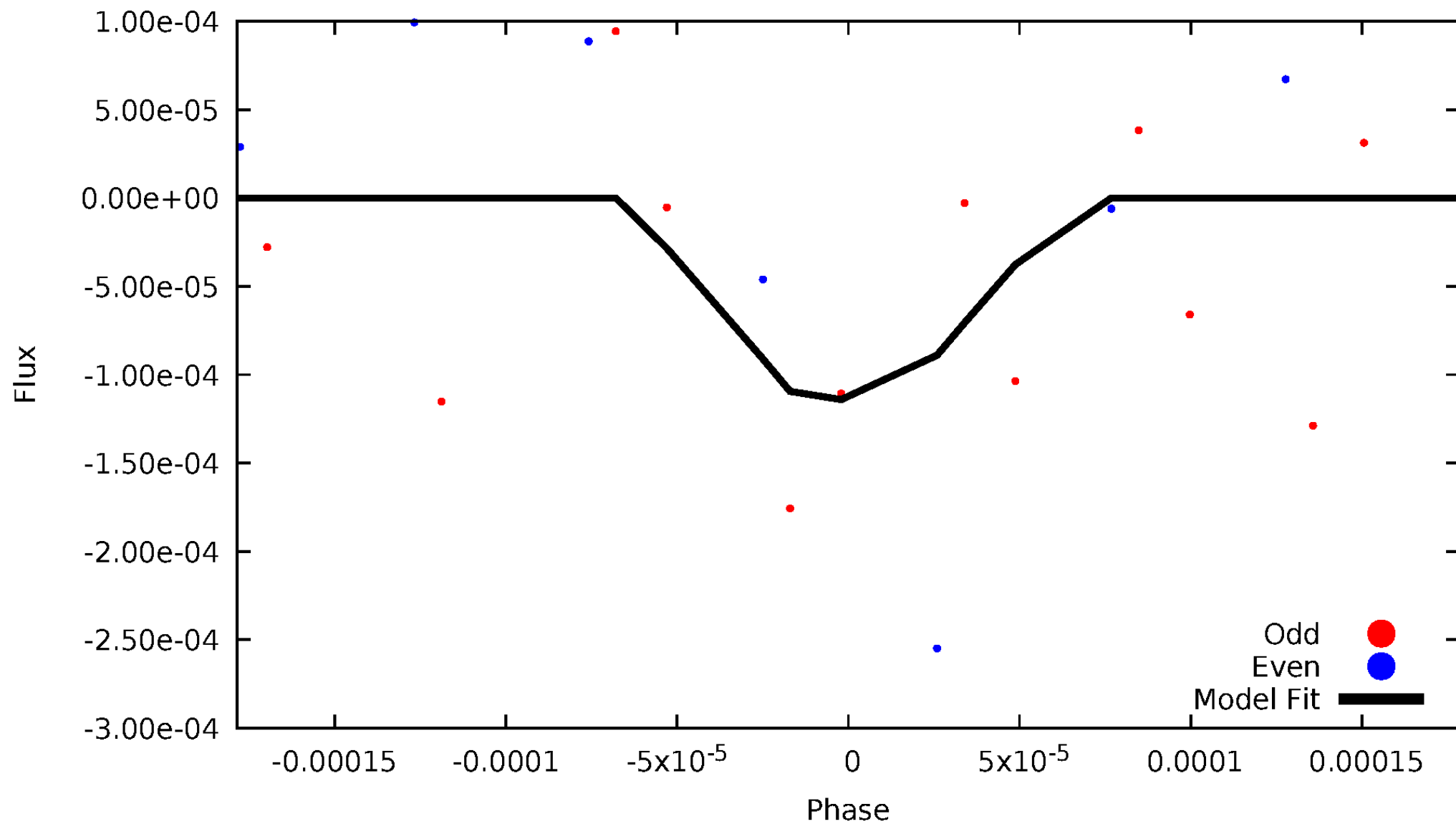


TCE 008881883-05



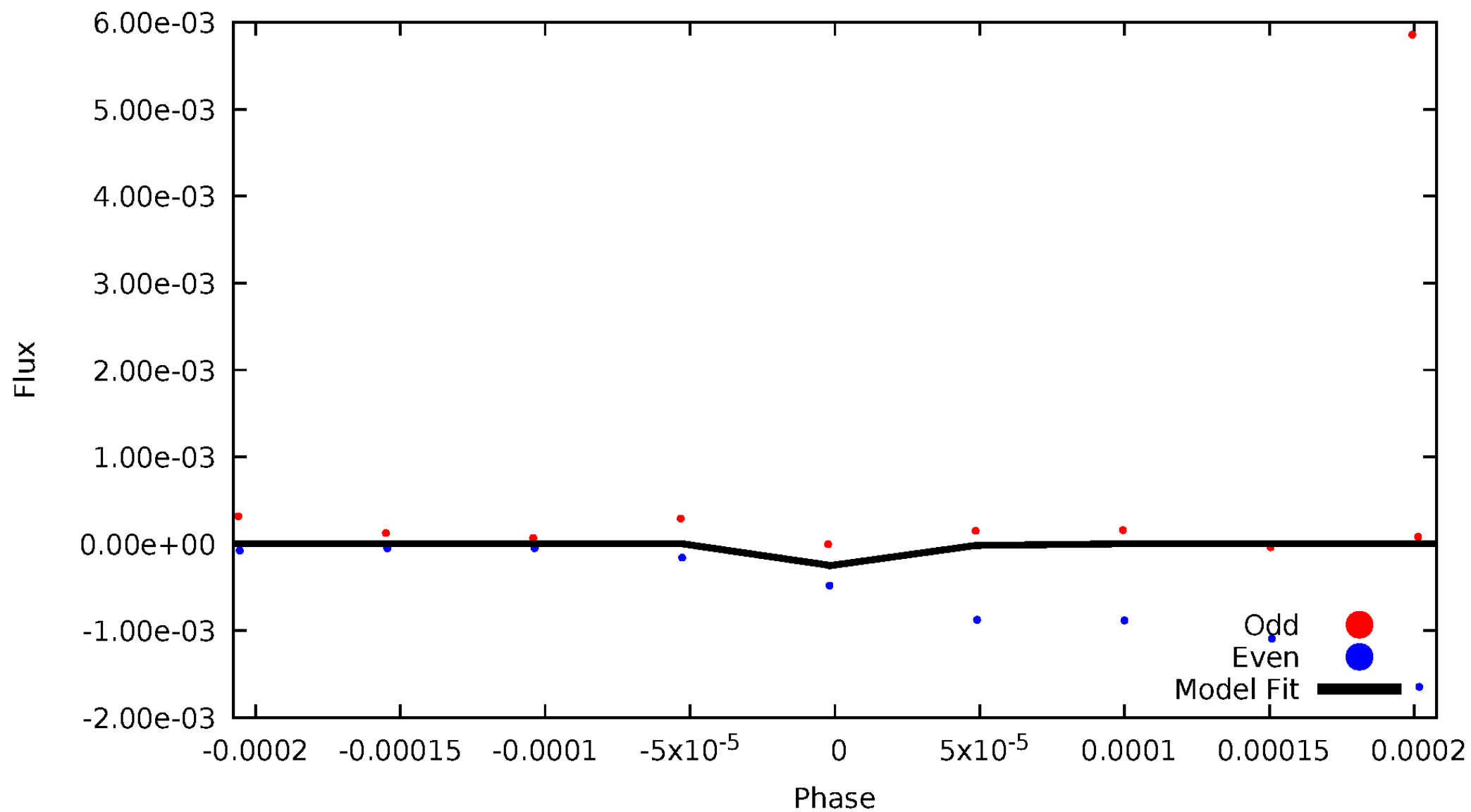
DV Odd/Even

TCE 008881883-05



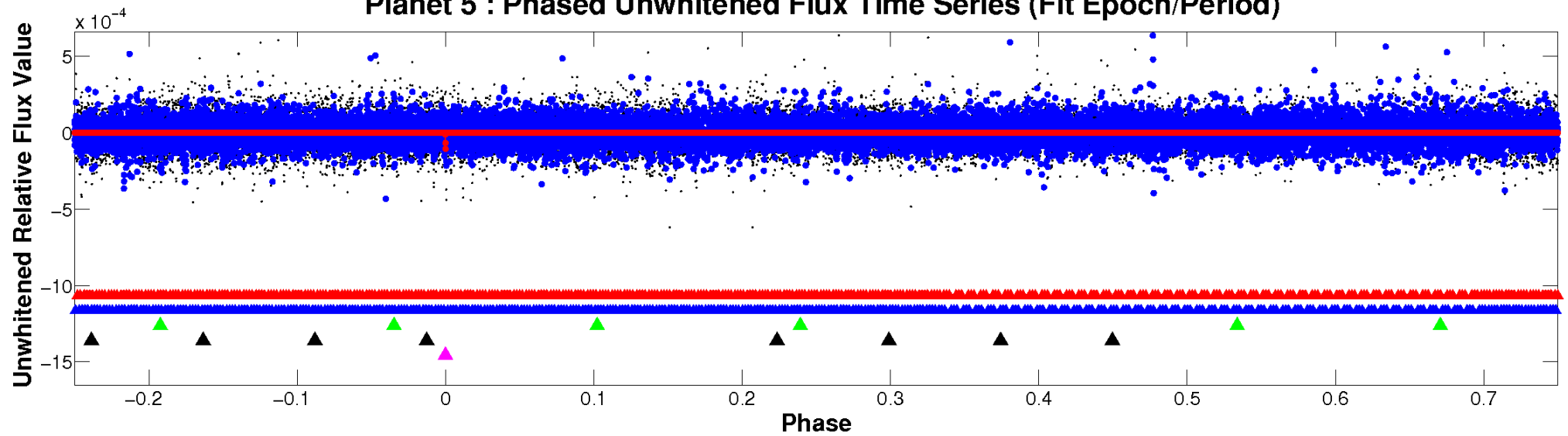
ALT Odd/Even

TCE 008881883-05

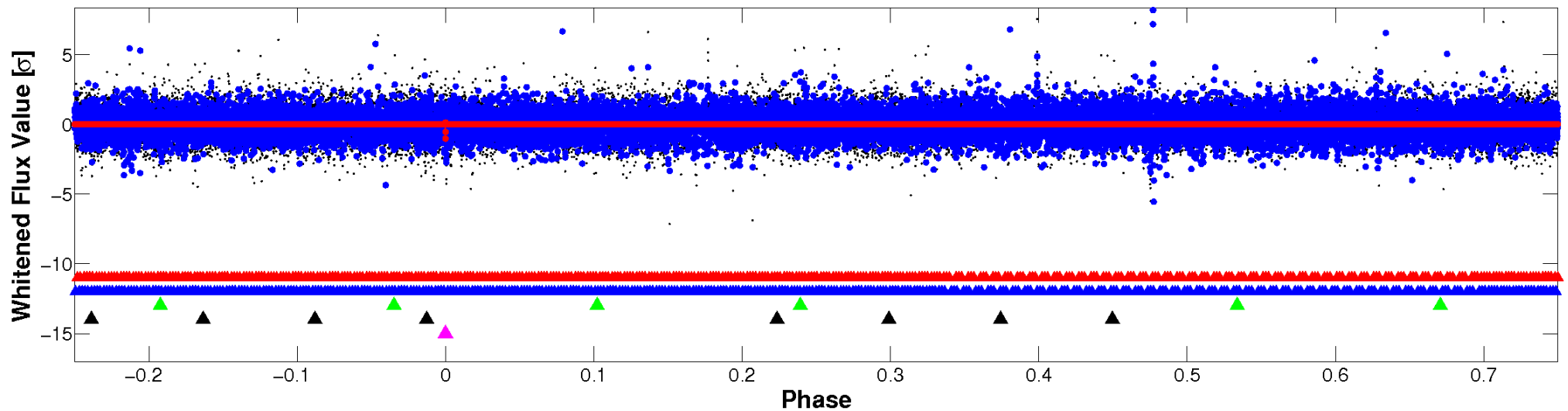


Non-Whitened Vs. Whitened Light Curve

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

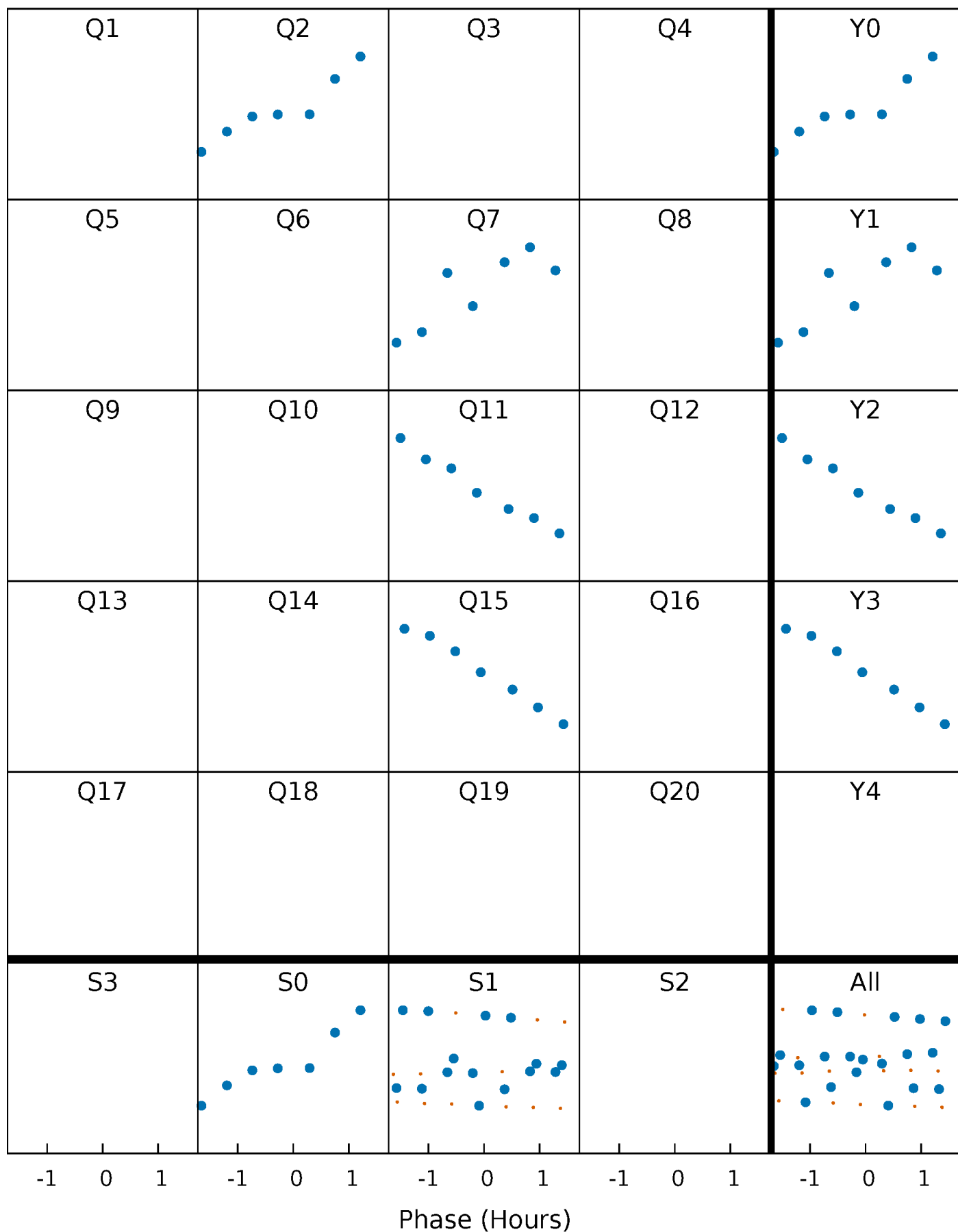


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



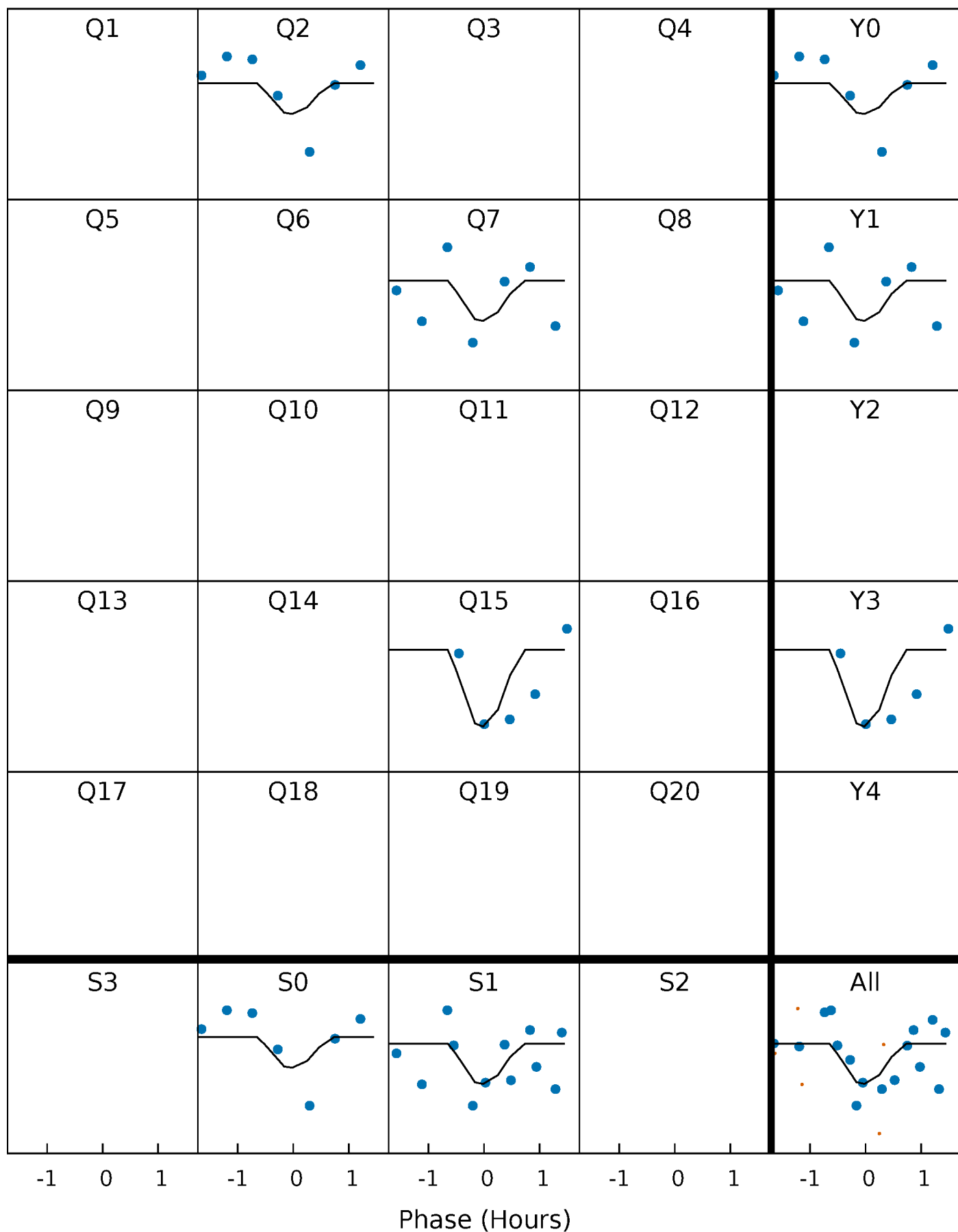
PDC Quarter-Phased Transit Curves

TCE 008881883-05 $P=401.413898$ Days $T_0=252.776667$ (BKJD)



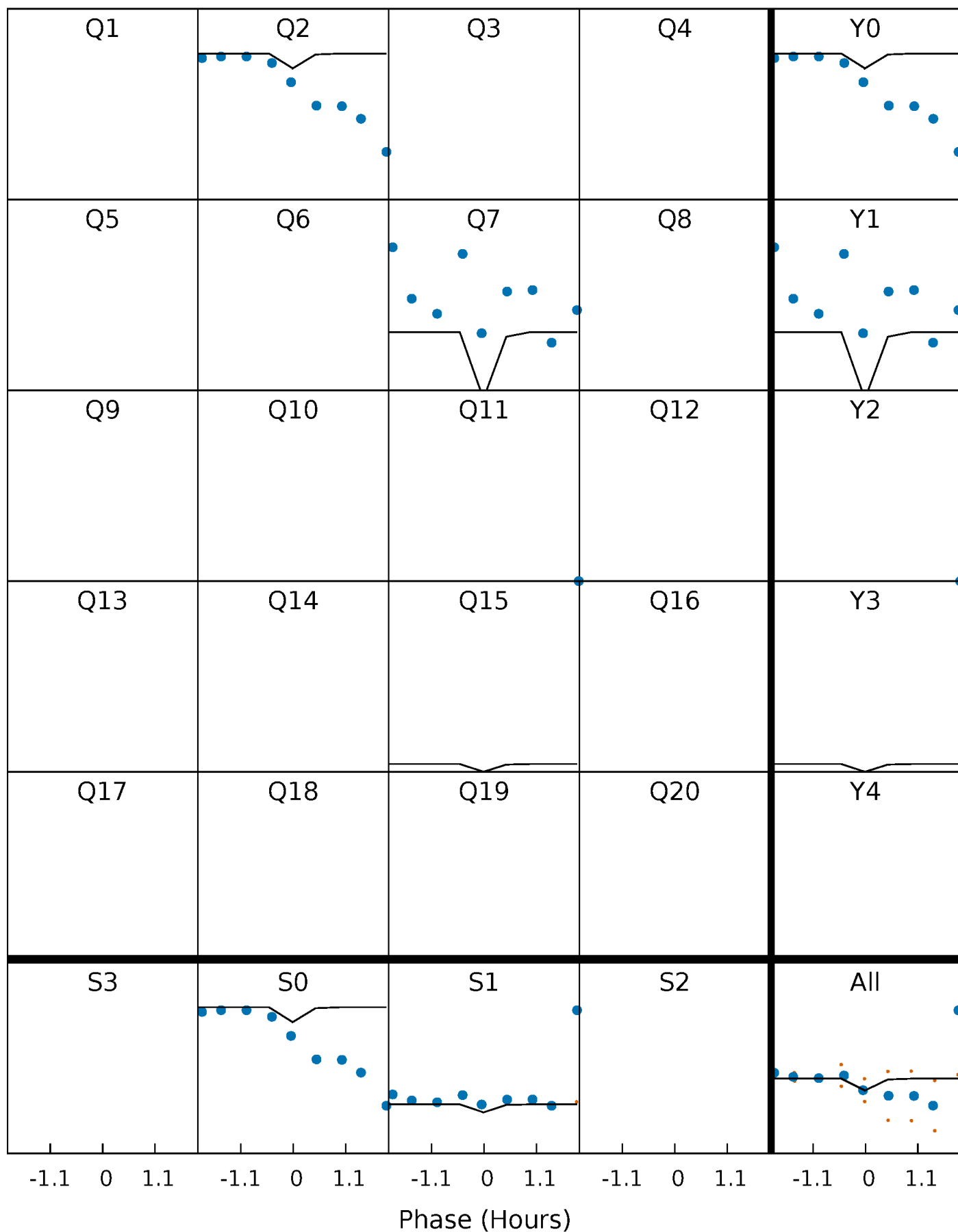
DV Quarter-Phased Transit Curves

TCE 008881883-05 $P=401.413898$ Days $T_0=252.776667$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

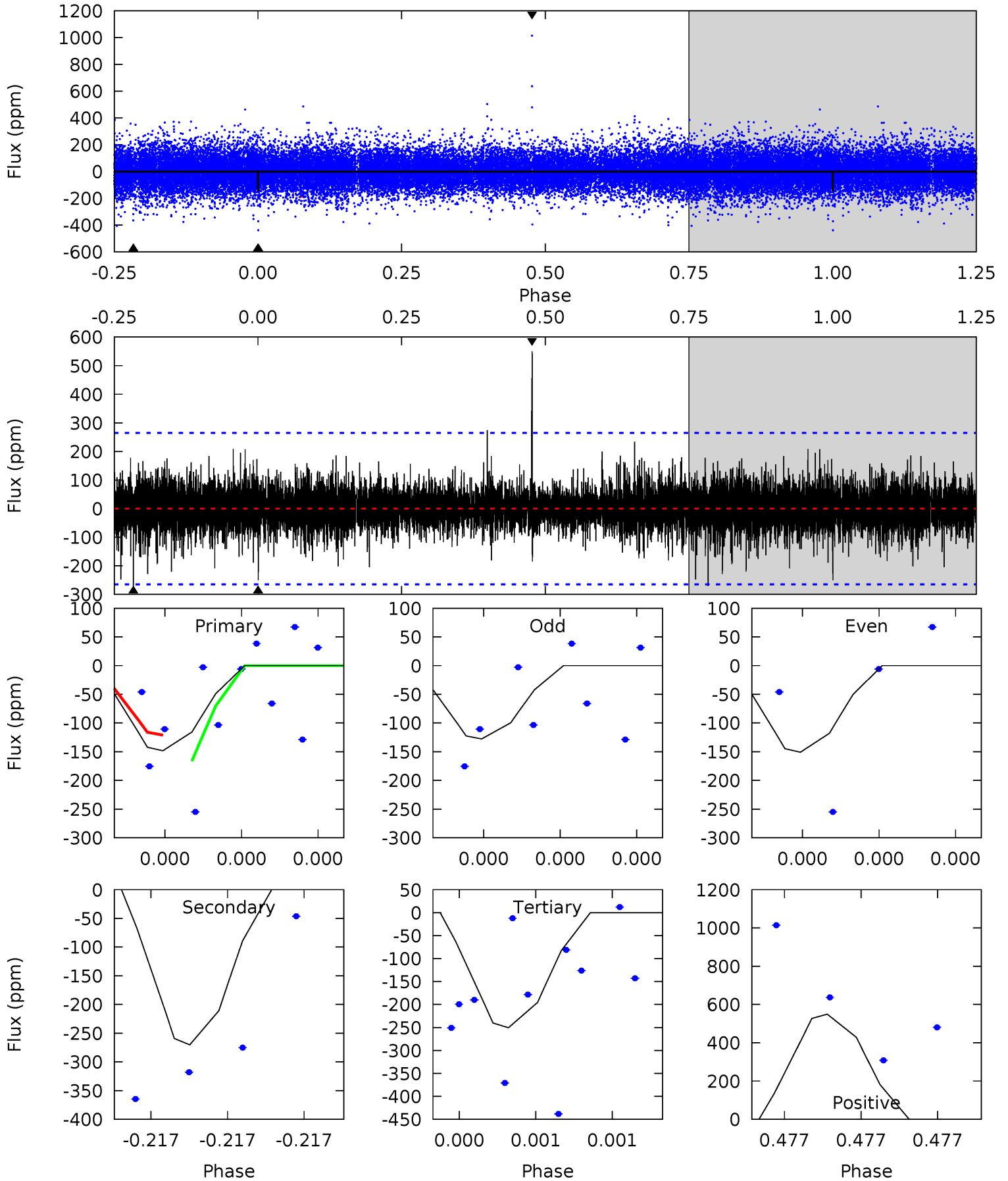
TCE 008881883-05 P=401.417286 Days $T_0=252.767387$ (BKJD)



DV Model-Shift Uniqueness Test

008881883-05, P = 401.413898 Days, E = 252.776667 Days

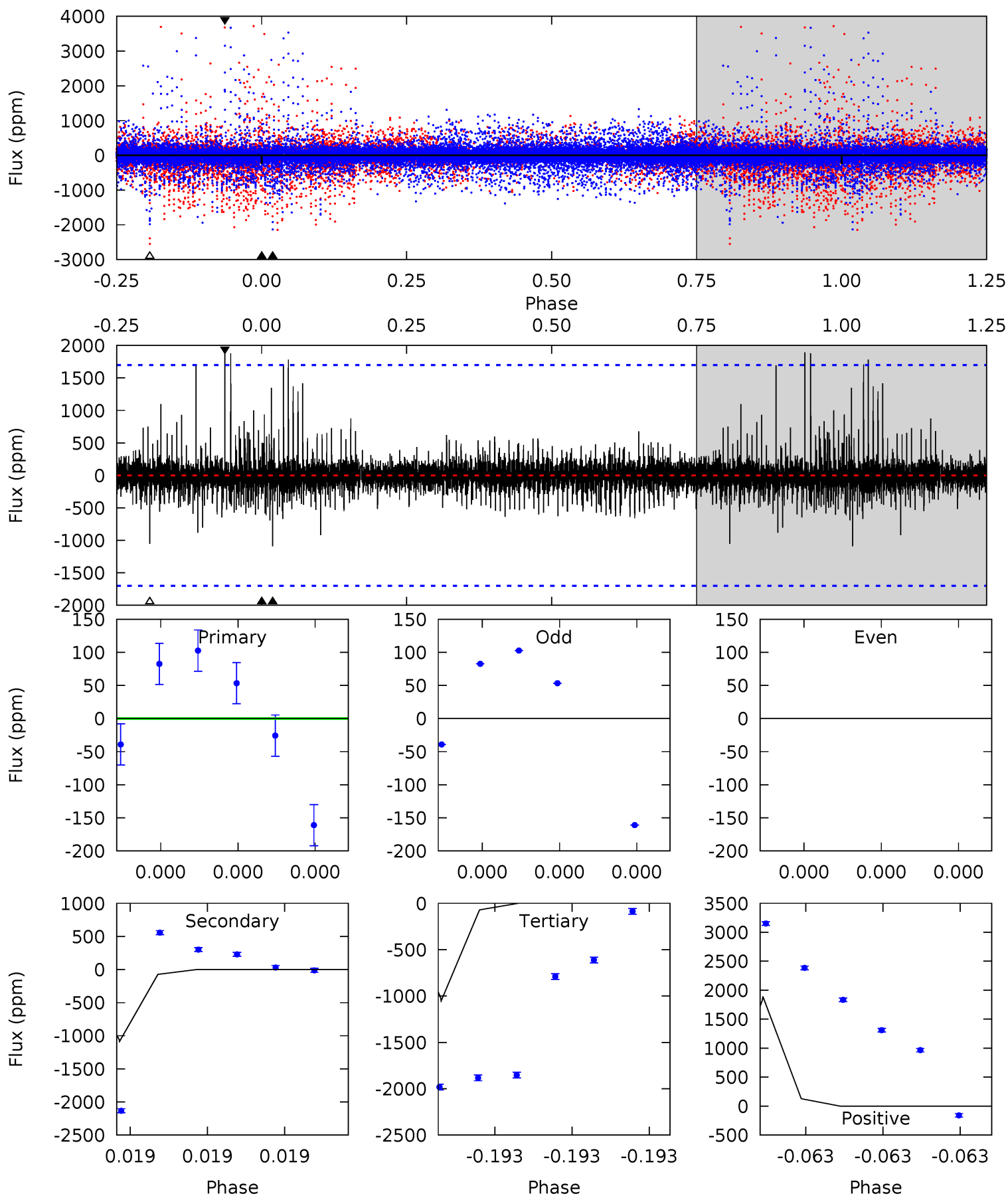
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.30	6.02	5.58	12.2	5.90	3.96	1.05	-2.28	-8.93	0.44	-6.22	0.22	1.14	0.67	0.50



Alt Model-Shift Uniqueness Test

008881883-05, P = 401.417286 Days, E = 252.767387 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.84	3.74	3.63	6.51	5.84	3.89	0.43	-2.79	-5.67	0.11	-2.77	1.12	1.00	0.64	0.00



Stellar Parameters For KIC 008881883

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	10949^{+221}_{-516}	$3.650^{+0.416}_{-0.073}$	$0.070^{+0.150}_{-0.550}$	$4.465^{+0.509}_{-1.909}$	$3.249^{+0.088}_{-0.791}$	$0.051^{+0.193}_{-0.012}$
	+2%/-5%	+11%/-2%	+214%/-786%	+11%/-43%	+3%/-24%	+376%/-24%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008881883-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-270 ± 45	$7.88^{+8.30}_{-5.40}$	1093^{+75}_{-127}	9963^{+20833}_{-3405}	5801^{+48753}_{-4495}
Alt.	-1087 ± 291	$9.28^{+8.92}_{-6.08}$	1092^{+76}_{-128}	15485^{+46060}_{-6378}	$16333^{+131482}_{-12304}$

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

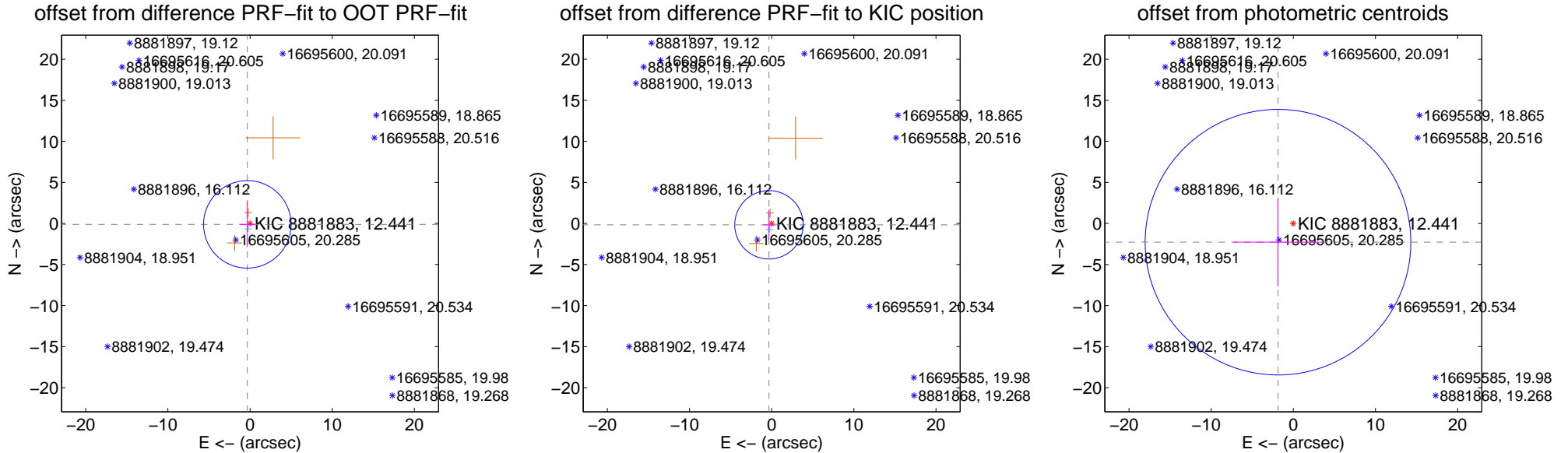
DV Centroid Data

Supplemental centroid analysis for 008881883-05. Kepler magnitude: 12.44. Transit SNR 1.85

There are 1 quarters with good PRF difference image offsets

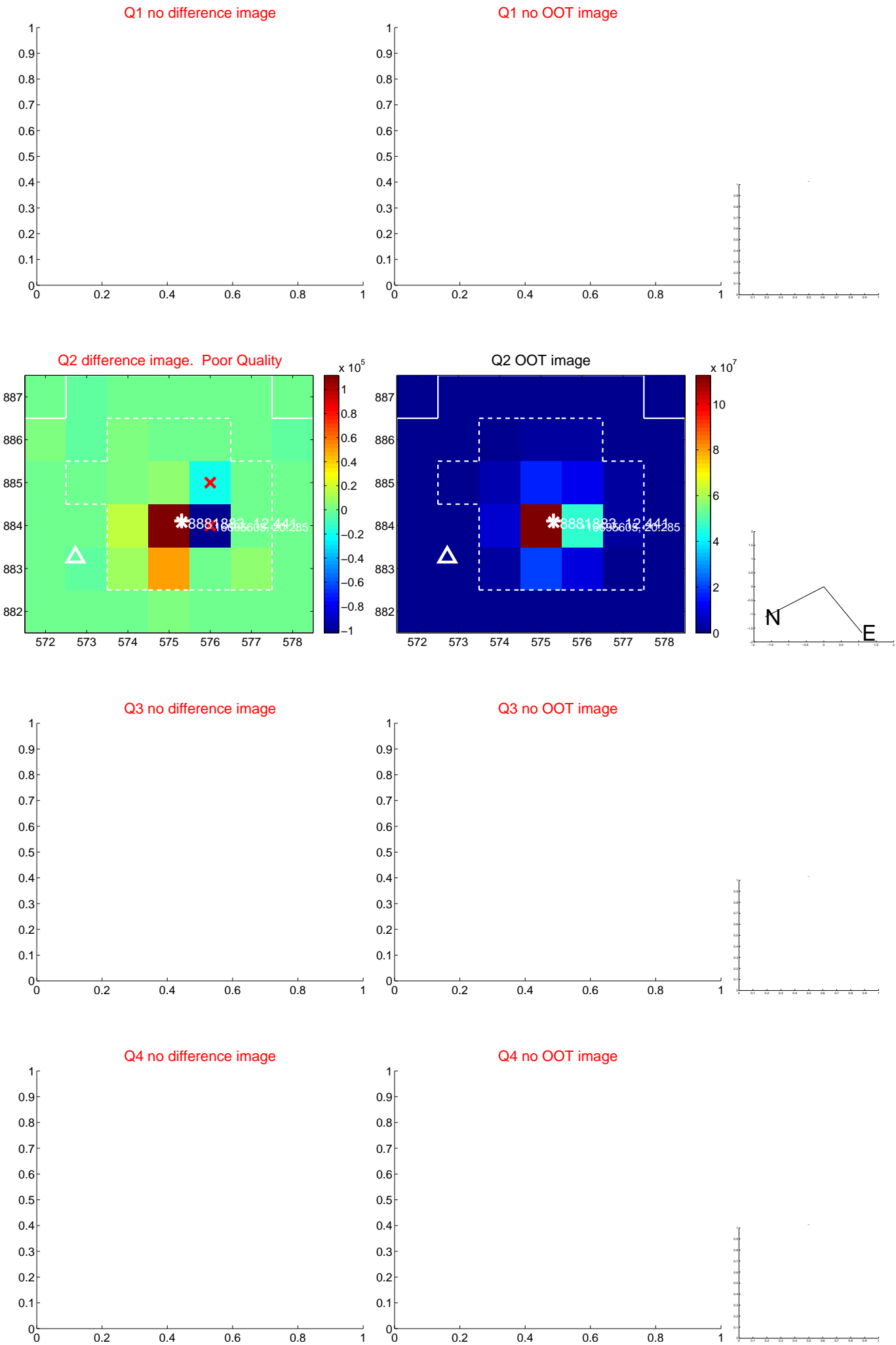
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.350 ± 1.775	0.20	0.333 ± 0.963	-0.109 ± 2.781
PRF-fit source offset from KIC position	0.369 ± 1.388	0.27	0.330 ± 0.664	-0.165 ± 1.819
photometric centroid source offset	2.94 ± 5.39	0.55	1.86 ± 5.41	-2.28 ± 5.37

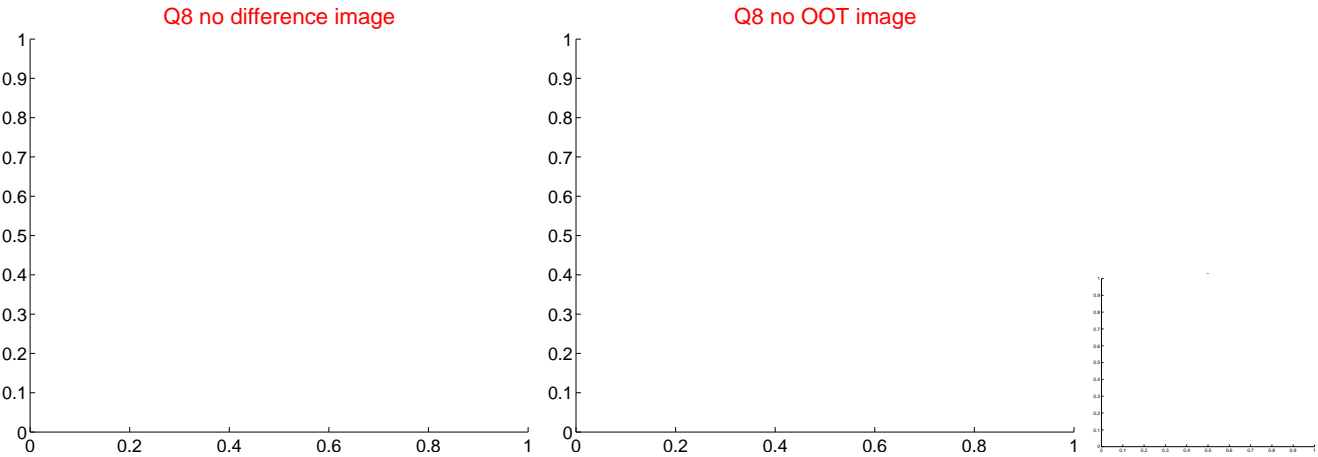
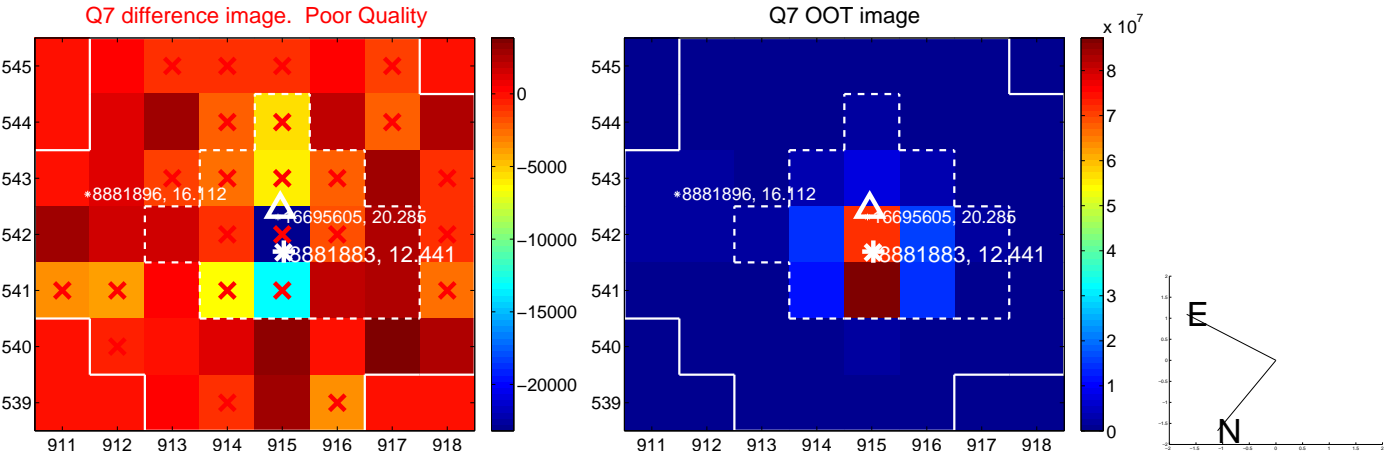


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

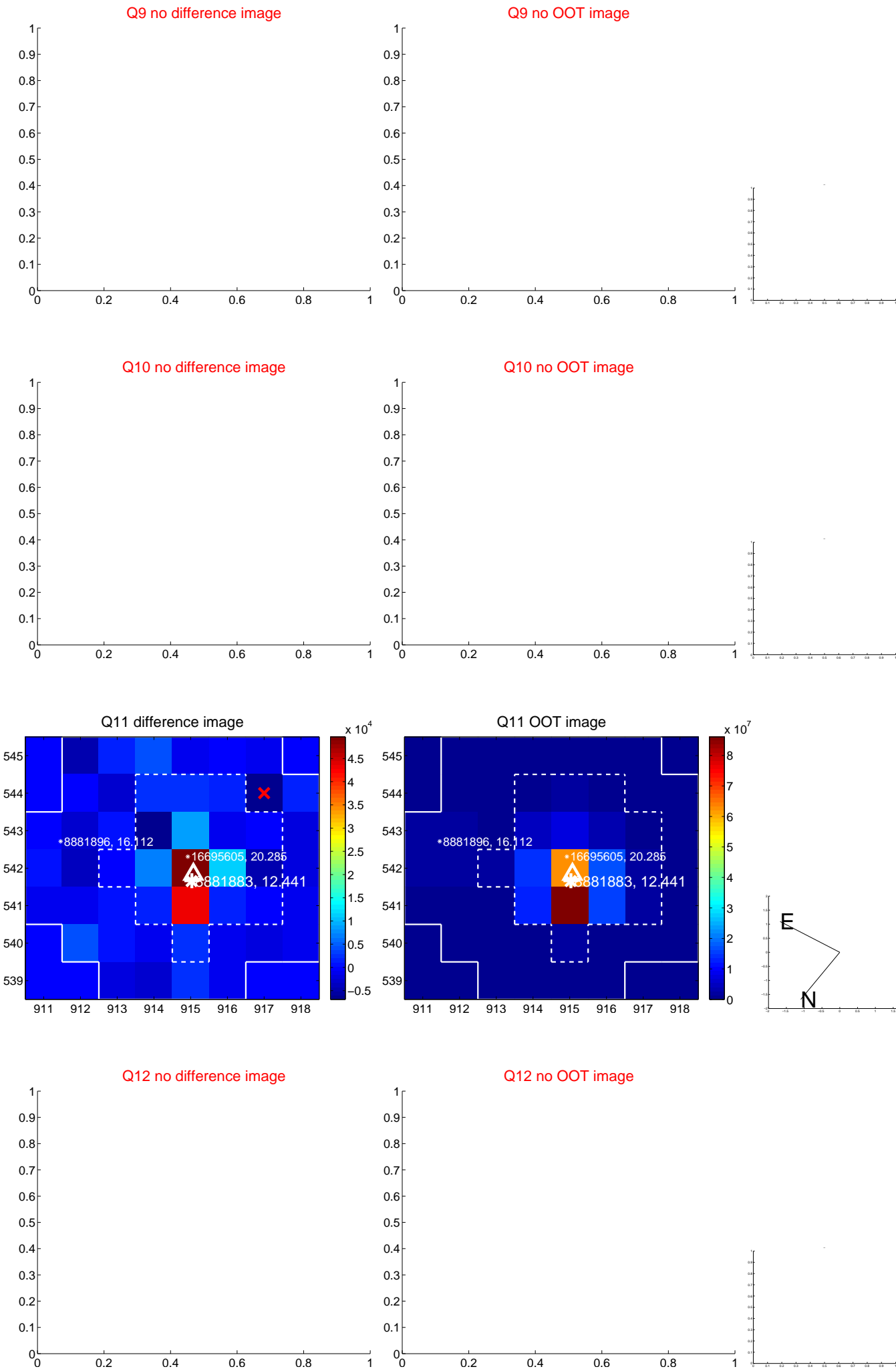
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



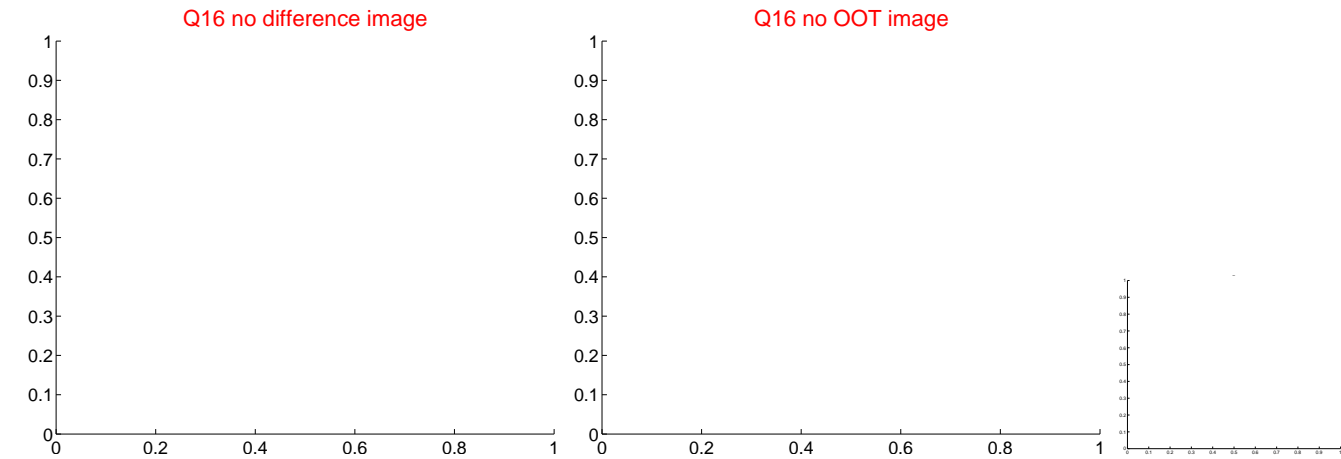
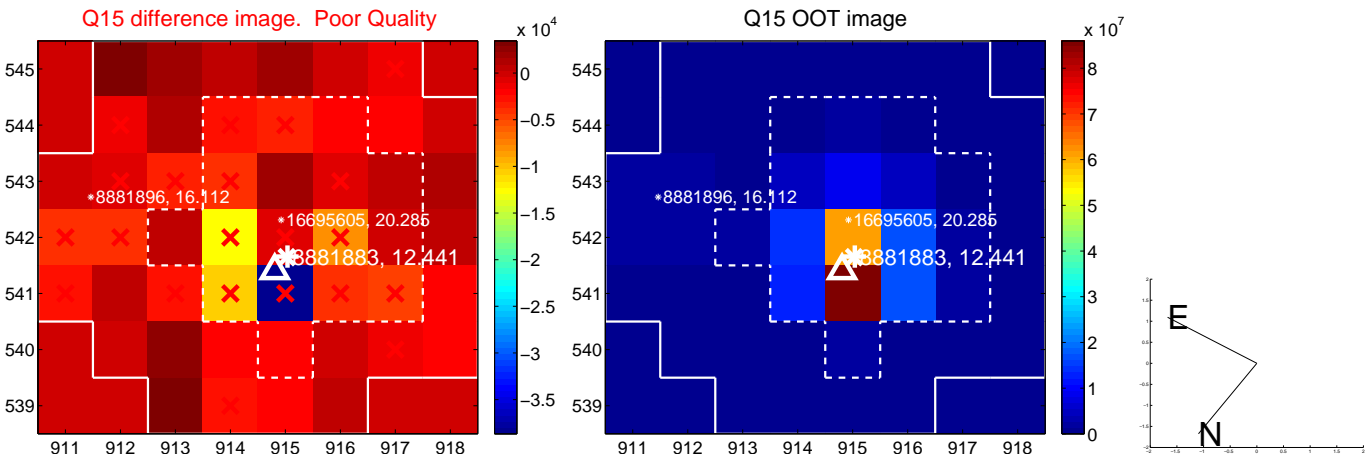
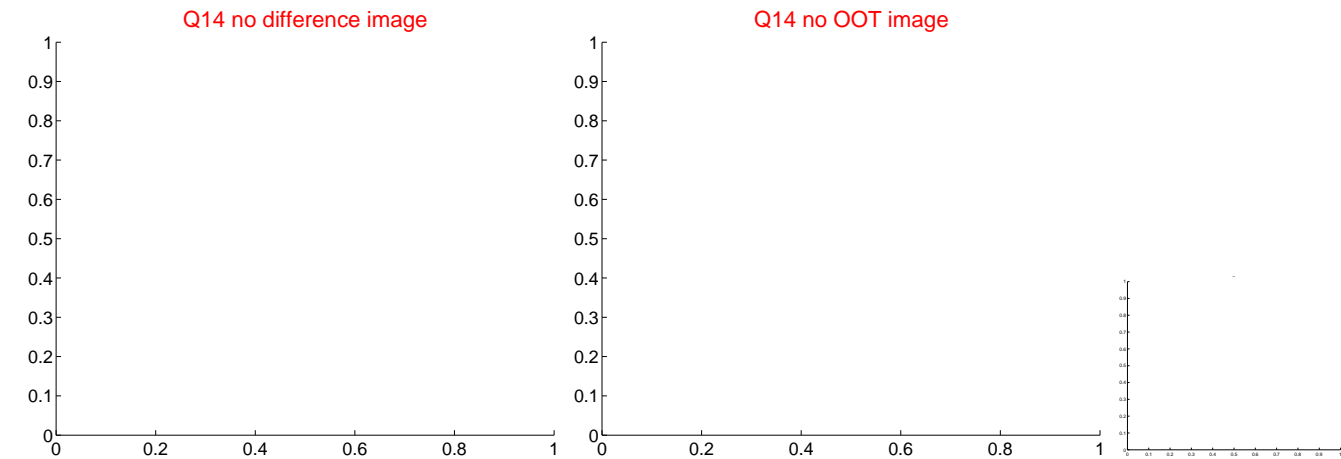
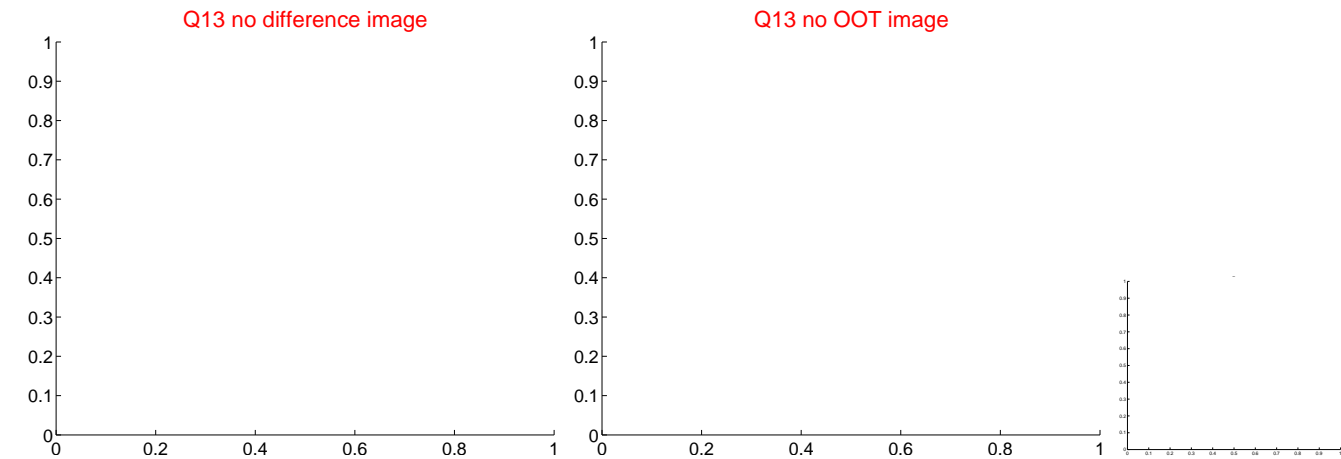
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



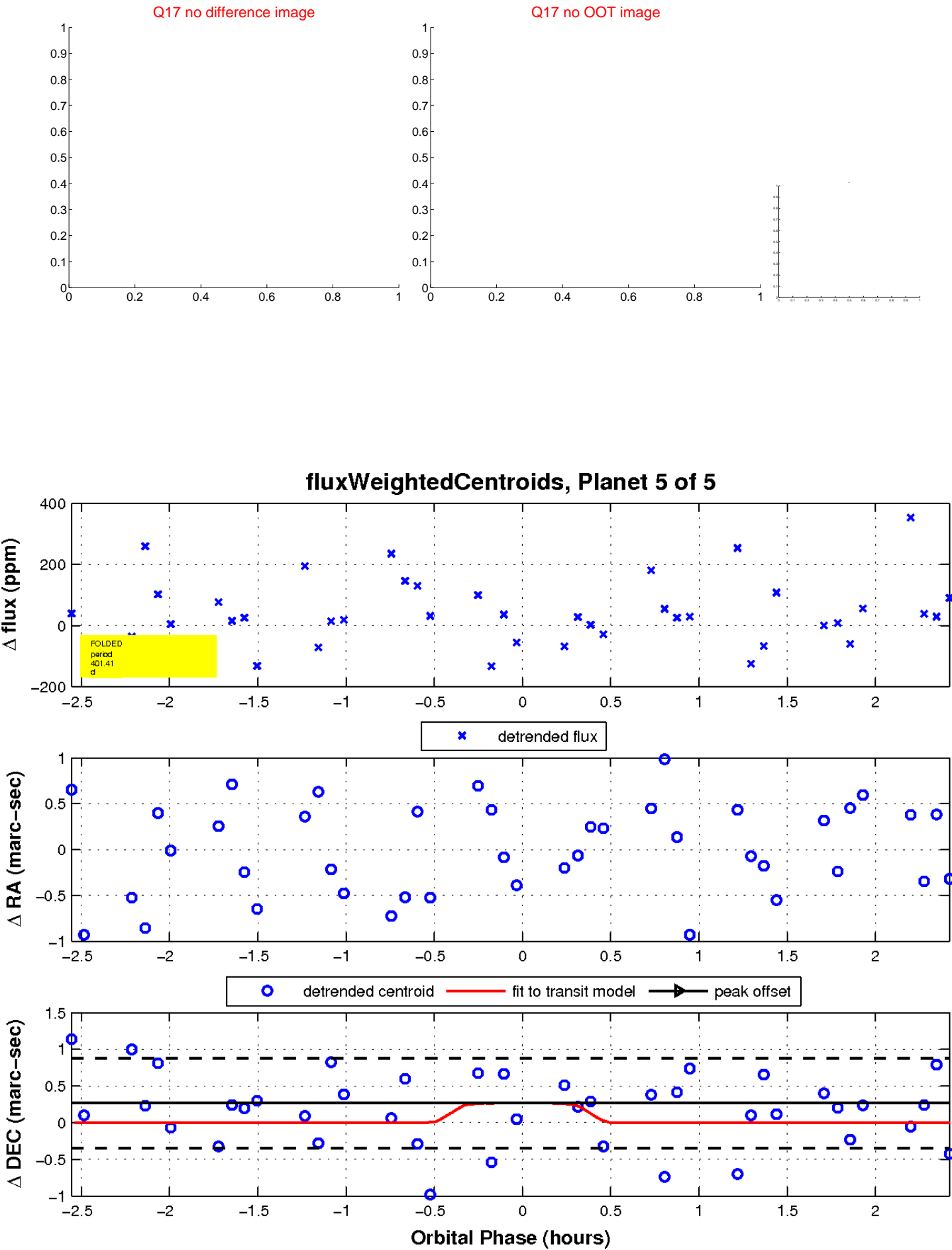
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

